THE JOURNAL

OF THE

ANTHROPOLOGICAL INSTITUTE

OF

GREAT BRITAIN AND IRELAND.

DECEMBER 3RD, 1889.

(*An Extra Meeting held at the Royal Aquarium, Westminster, by invitation of the Directors.*)

FRANCIS GALTON, Esq., F.R.S., *Vice-President, in the Chair.*

DR. J. G. GARSON read a paper descriptive of the Natives of Tierra del Fuego, which will appear subsequently in the Journal. The natives exhibited at the Aquarium were present while the paper was read.

Professor A. H. KEANE proposed, and Mr. E. W. BRABROOK seconded, a vote of thanks to M. Le Maitre, who had allowed the members of the Anthropological Institute to inspect the group of natives which he had brought from Tierra del Fuego; as also to Captain Molesworth, as Chairman of the Aquarium, and to his co-directors for having given the members free admission to the building.

By the invitation of Mr. G. Montgomery the members then proceeded to examine the Russian child-giantess on exhibition at the Aquarium.

DECEMBER 10TH, 1889.

Professor FLOWER, C.B., F.R.S., *Vice-President, in the Chair.*

The Minutes of the last ordinary meeting and of the extra meeting of December 3rd, were read and signed.

The following presents were announced and thanks voted to the respective donors :—

FOR THE LIBRARY.

From the AUTHOR.—Among Cannibals. By Carl Lumholtz, M.A.
—— Album von Celébes-Typen. Herausgegeben von Dr. A. B. Meyer.
From the STATE BOARD OF HEALTH, MASSACHUSETTS.—Registration Report, 1888.
From the PUBLISHERS.—Oceania: Linguistic and Anthropological. By the Rev. D. Macdonald. [London; Sampson Low, Marston, Searle and Rivington, Limited.]
From the ROYAL SCOTTISH GEOGRAPHICAL SOCIETY.—The Scottish Geographical Magazine. Vol. v. No. 12. December, 1889, and Appendix.
From the SOCIETY.—Proceedings of the Royal Geographical Society. Vol. xi. No. 12. December, 1889.
—— Journal of the Society of Arts. Nos. 1,932, 1,933.
—— Proceedings of the Society of Biblical Archæology. Vol. xii. Part 1.
—— Mittheilungen der Niederlausitzer Gesellschaft für Anthropologie und Urgeschichte. 5 Heft.
—— Anales de la Sociedad Española de Historia Natural.
—— Nouveaux Mémoires de la Société Impériale des Naturalistes de Moscou. Tome xv. Livraison 6.
From the SOCIEDADE CARLOS RIBEIRO.—Revista de Sciencias Naturales e Sociales. Vol. i. No. 2.
From the EDITOR.—Nature. Nos. 1048, 1049.
—— Science. No. 353.
—— Revue Scientifique. Tome xliv. Nos. 22, 23.
—— Revue d'Ethnographie. Tome viii. No. 2.

The Secretary read the following Paper :—

On Fire-Making *in* North Borneo.

By Sydney B. J. Skertchly, F.G.S., M.A.I.

[with plate xi.]

I.—Introductory.

The following notes do not describe any new method of obtaining fire, but they are offered as exact accounts of the processes now in use, and I believe such accounts are as rare as they are useful. Moreover the rapid spread of matches is steadily replacing the aboriginal methods even among the tribes in the interior of Borneo, who get them from Chinese and Malay traders.

The apparatus sent herewith was all made by my own Dyaks or Cagayau-sulus, and the photographs which accompany the paper are of the makers, taken by my wife. I have seen each specimen used successfully by my men, and more or less unsuccessfully by myself. In the forest I have more than once been reduced, about dinner-time, to the fire-drill.

The orthography of the Dyak words is phonetic. The information was conveyed to me in the Malay language, and I have no Dyak vocabulary.

I may here note a curious expression showing the Malays still class fire as an imponderable. A man will say:—

Kayu ini jahat, tá bulli kluah api.
Wood this bad, not will *exude* fire.

The verb *kluah* is noticeable as showing they believe the fire to reside in the wood. As a Malay elegantly expressed it—

Ini kayu ada api didalam, seperti bisul nanah.
The wood has fire inside, just as a boil [has] matter.

II.—The Fire-Syringe. (Pl. XI, fig. 1.)

The Dyak name is *Besi api bangka;* the Malay *Besi api timah.*

The literal interpretation is iron-fire-tin. *Besi* (pr. *biissi*) is "iron," and *api* "fire," in both languages. *Bangka* is "an ingot of tin" in Malay and "tin" in Dyak. *Timah* is "tin" in both languages.

Why the word *besi* is used seems difficult to explain, as no iron enters into its construction. I can only suggest it may be an abbreviation of *tukol besi*, "a hammer," literally "an iron-striker," in which case the name would signify "tin-fire-hammer." In common discourse the machine is simply called *besi api*. I do not think the apparatus was ever made of iron, as the Dyaks do not cast hollow things in iron, nor do I think *besi* can be a Dyak word with a meaning unknown to me.

The fire-syringe is by no means commonly known, and I asked many Dyaks[1] before I found any who could make, or even describe one. Finally some Kalakas helped me and made the specimens described. The Kalakas come from the west of Sarawak, the tribes in order going west from Sarawak being the Batang Lupa, Seribas, Kalaka, Batang Rejang.

The parts of a fire-syringe are named as follows:—

English.	*Dyak.*	*Malay.*
Cylinder.	Bangka.	Timah.
Piston.	Tăras.	Melayang or Alu.
Tinder.	Umbut.	Lulup.
Tinder box.	Sarong-besi-api.	Tempat-besi-api.
Cleaning stick.	Rotan.	Rotan.

Bangka, "tin," is probably from Banca.

Tăras is the name of the wood used.

Melayang is anything used to pound with; thus the pestle used for pounding padi is called *melayang*.

Alu is a "pestle" or "pounding stick."

Umbut is simply "tinder."

Lulup, or *lulut*, also signifies "tinder," and appears to be connected with *luluh*, "in atoms."

Sarong signifies literally a "sheath" or "covering." Thus the typical Malay dress, the *sarong*, is really *sarong kain*, "cloth sarong," stockings are *sarong kaki*, "foot sarongs," a knife sheath is *sarong parong*, or *sarong kris*, and so on. It is both Dyak and Malay.

Tempat means literally "a place where anything is done or kept." Thus a bed is *tempat tidor*, "sleeping-place," a water-cask is *tempat ayer*, "water-place," and they called my butterfly-net *tempat koupu koupu*, "butterfly-place."

Rotan is, of course, what we call "rattan," schoolmaster's cane and botanist's *calamus*.

The *Cylinder* is made of a mixture of two parts of lead to one of tin. [Lead is *iimah itam*, literally "tin-black," showing that lead is a newer metal than tin to Malays and Dyaks.]

[1] There are no true Dyaks indigenous to North-east Borneo. Those we have are gutta hunters from Sarawak and Brunei.

It is cast in a bamboo mould, somewhat as lead pipes are, I believe, cast. The mould is a thin piece of bamboo, split lengthwise, on the interior of which the ornamental bands, &c., are incised. (Pl. XI, fig. 2.)

A piece of flat wood, plank by preference, has a hole made in it the size of the bore. Through this hole a rotan is pushed, which also passes through a lump of clay tempered with sand stuck on the upper surface of the plank. The rotan projects beyond the clay to a distance somewhat greater than the length of the cylinder.

The mould, bound together with split rotan, is placed centrally and vertically over the projecting rotan, thus forming a box closed below with clay, open at the top, and having a rotan in the centre. Into this the molten metal is poured. When cool the rotan is withdrawn, the mould open, and the cylinder is complete. A good mould will make three or four castings, but, as a rule, the first destroys it.

The measurements of the cylinder are:—

Length, $3\frac{1}{4}$ inches; width, $\frac{1}{2}$ inch; bore, $\frac{3}{8}$ inch.

This is an average size; larger ones do not work well, smaller ones are of no use.

The ornamentation consists essentially of a double raised moulding about a quarter of an inch from the top and bottom, with sometimes a chevron moulding beneath the upper pair of mouldings. Of course the details vary with the taste and skill of the maker, but I can only describe what I have seen.

The upper mouldings are useful as well as ornamental, the groove between them keeping the cord from slipping which attaches the other pieces of apparatus.

The Piston (Pl. XI, fig. 1, *b*) is made of any hard wood, cylindrical, has a knob at the top, and is packed at the bottom for an inch with cloth to render the apparatus air-tight. The end is slightly hollowed for the reception of the tinder.

The Tinder that answers best is made from the external covering of the stem of a low palm, called by the Dyaks *apiang*. The basis *api* shows the name is due to the use made of the fluffy material which forms the tinder. I have only found this palm growing on the banks of mountain streams far in the interior. It grows about 30 feet high with the habit of a sago palm—clumpy. The leaves are about 15 feet long, the leaflets of a rough triangular shape with the apex towards the leaf-stalk, and very wrinkled. This puckering is highly characteristic, and gives the palm the appearance of having been damaged.

The stem is covered with a brown flocculent mass, quite soft. This is scraped off and forms the best tinder. (Pl. XI, fig. 3.)

The *Tinder-box* is a joint of bamboo about an inch thick and two to three inches long. It is ornamented according to the taste and skill of the owner in leisure moments.

The *Cleaning-stick* is simply a piece of rotan, and this and the tinder-box are attached to the syringe by threads.

To use the syringe a small piece of tinder is placed in the hollowed end of the piston, which is inserted in the mouth of the cylinder. Holding the cylinder in the left hand the knob of the piston is smartly struck with the open right hand, with sufficient force to drive the piston home. The piston is instantly and quickly withdrawn, and the tinder is seen to be alight.[1] Gently breathing on the spark it spreads, fresh tinder is applied, which catches fire immediately; more blowing increases the fire, and first scraped wood and then small sticks catch alight, and a fire is produced.

It looks very easy, but I never succeeded, though my son, Mr. E. F. Skertchly, did. The piston soon gets out of order if the packing is not attended to.

III.—Fire Drill. (Pl. XI, fig. 4.)

This well-known method of fire-making is common to all the natives in this part of Borneo, Malays, Dyaks, Dusuns, Bajows, Cagayaus, Sulus, Muruts, Cagayau-sulus, Bugis, &c., but it is getting rare to find a *young* man who knows how to work it, though they soon learn.

Only three kinds of wood are used as drills in this part of Borneo, none of which, unfortunately, have I yet been able to identify by flowers or fruit. In all cases the wood is light, even-grained, soft and friable. The commonest is a small rapid-growing tree with huge rhubarb-like leaves. It is called by the Cagayau-sulus *ladang*,[2] as is the tree from whose wood the Japanese make shoe-soles. It starts up anywhere after the forest is felled, and grows twenty feet in the first year. Its extreme height is about thirty feet. The specimens sent home are of this wood. It is a short-lived tree, and it is from the dead trees the wood is taken for fire-making, though that from living trees does as well if thoroughly dried.

The description of fire-making in Australia by Captain Cook, as quoted by Tylor,[3] is very exact, but there are one or two

[1] I have never seen tinder "burst into flame," as we sometimes read about. No tinder known to me could perform such a feat. It can only smoulder.

[2] Ladang means quick-growing. The tree is also called *penembang*.

[3] "Early Hist. Mank.," p. 238.

points either omitted or not applicable to the Australian method.

The drill (*a*) is a round stick about a foot long, tapering from a quarter to an eighth of an inch. The thicker end is slightly rounded.

The fire-wood (*b*), as the other piece may be called, since from it the fire is obtained, is of the same white *ladany* wood, about $14 \times 0{\cdot}75 \times 0{\cdot}25$ inches, roughly squared on all faces. This must not have any flaw in it.

The first operation is to cut a notch or groove down the side, for the dust to fall through. This is not mentioned by Captain Cook, but is always done, and indeed is necessary, as the dust which falls in a little heap on the ground below the hot drill, would otherwise accumulate round the drill on the top of the fire-wood, and be scarcely heated.

The operator sits on the ground and holds the fire-wood steady with both feet. Then taking the thin end of the drill between the palms of his outstretched hands he plants the rounded thick end a little on one side of the centre of the fire-wood towards the groove, applying considerable pressure.

He then works his hands backwards and forwards, keeping up the pressure, and moving the hands steadily downwards. Arrived at the bottom the hands are slid up again and the process repeated. During the upward motion of the hands the drill is still. At first the motion is slow, about one remove per second. The friction begins to wear a hollow in the fire-wood, and the dust falls down the groove in a little heap.

If the wood be in good condition, the dust, which is the tinder, begins to smoke in about twelve strokes (*i.e.*, twelve removes of the hand upwards). The motion then becomes gradually quicker and quicker till it is very fast, and I have often seen fire got in a hundred strokes within a minute. The usual time is about two minutes, but it may be five or ten if the wood be damp, of bad quality, or the operator unskilful.

As soon as fire is got the spark is gently blown, and the glowing tinder fed with shaved wood till a flame is obtained, blowing being continued all the time.

The drill wears but little, and becomes hard and charred at the end. The fire-wood is usually bored about half-way through before fire is got. The same hole can sometimes be used twice. The holes are charred in the process.

IV.—The Fire-saw. (Pl. XI, fig. 5.)

This was a favourite method of fire-making by Pandeka, a Cagayau-sulu, and is quick and effective. There are two varieties of fire-saw, but in both the apparatus is alike and simple.

In the first method two pieces of dry bamboo are taken, one of which may be called the saw, the other the horse.

The saw is a piece split from a large bamboo about 9 inches long and one and a half inches wide. In the centre of the outside a fine notch is cut across the saw deep enough to just cut through the central part. The outside is then scraped into fine shavings which are put over the hole for tinder. A few larger shreds are roughly torn up from the inside, but not disconnected from the bamboo, and are bent over the tinder to hold it in place.

The horse is a similar piece of bamboo, somewhat longer than the saw, and having one edge sharpened.

To use it the operator sits on the ground, fixes the horse firmly in front of and sloping from him, and takes the saw in both hands, curved side down, tinder uppermost, one hand at each side.

Applying strong pressure he places the notch on the sharp edge of the horse, and steadily works the saw to and from him. In about ten strokes the tinder begins to smoke, the sawing becomes more and more rapid and finally very fast, and the tinder is aglow. Lifting the saw he blows through the hole from the curved side on to the tinder, which is soon all smouldering, and fire is got in the usual way. The usual time is under a minute. I have seen the operation completed in sixty strokes.

This is the common method in Cagayau-sulu.

The second method, in use in Sulu and the native states, Perak, Selangore, &c., is simply a reversal of the process. The sharp-edged bamboo becomes the saw, the tinder-bearing bamboo the horse. The tinder-laden bamboo is fixed curved side uppermost, and the sharp-edged bamboo worked in the notch with a saw-like motion. It is equally effective with the other method, but, I think, not quite so rapid, as a greater pressure can be got with both hands than by one.

Both saw and horse become charred. The sharp-edged bamboo is worn down into a curve, and the notch in the other deepened in both methods.

V.—Fire from Bamboo and Pottery.

Pandeka, who is most skilful as a fire-maker, often amused me by striking fire with a bit of broken crockery on a bamboo.

He holds a long bamboo nearly upright, and taking a little of the scraped inside of bamboo in the hollow of his hand, and the crock between finger and thumb, he strikes a spark from the siliceous coating of the bamboo by one free stroke of the arm. It requires a good hard, seasoned bamboo to work well.

Description of Plate XI.

Apparatus for fire-making in North Borneo; collected by Mr. Skertchly, and presented to the Anthropological Museum of the University of Oxford.

Fig. 1. Fire-syringe, or *besi api*, complete with appendages. *a*. Cylinder with piston; *b*. Piston, removed from cylinder; *c*. Tinder-box; *d*. Cleaning stick.
Fig. 2. Half of the bamboo-mould, in which the cylinder of the fire-syringe is cast.
Fig. 3. Piece of *apiang* wood, from which the tinder is made.
Fig. 4. Fire drill. *a*. Drill; *b*. Firewood.
Fig. 5. Fire-saw with horse.

The paper was accompanied by a series of photographs taken by Mrs. Skertchly, showing the methods of obtaining fire from the instruments described above.

Discussion.

Prof. A. C. Haddon pointed out that the slot cut in the drill-hole, referred to by Mr. Skertchly, was not made by the Torres Straits Islanders nor by the natives of Queensland, and is therefore not essential to the process. In North Queensland a short sheath is made of bark, covered with beeswax and ornamented with red seeds and the yellow skin of an orchid, in order to protect the ends of the fire-sticks from damp. In the case of the two fire-sticks being made of the same kind of wood, a difference in hardness would be obtained by the grain of the wood in the one piece being at right angles to that of the other.

Mr. A. L. Lewis, referring to the survival of ancient modes of producing fire, remarked that he had a tinder box, flint, and steel, which were used up to 1870 by an old man in Epping Forest, who resolutely declined to allow any matches to enter his house.

Dr. J. Rae, on being asked by the Chairman to give some account of the mode of getting fire employed in use among the Eskimos, mentioned two plans he had seen used. The first of these was at Repulse Bay, and consisted of a small bundle of grass in the form of a bird's nest, about three inches in diameter, the cavity being very shallow—the outside grass was tough and rough, but gradually became finer and finer as it reached the

centre, where some wild cotton was added, and also some dried particles of decayed wood. By striking two pieces of iron pyrites over this, the sparks ignited the finer parts. He supplied these good people with some ordinary matches, also with some old-fashioned water-tight tinder boxes filled with burnt rags, flint and steel, and brimstone matches, used still very much by the Hudson's Bay Company's Voyageurs whilst travelling either in winter or summer, both to light their pipes or a fire. The other form of fire-producer obtained on Wollaston Land, and consisted of a piece of very much decayed willow or poplar eight inches long and two inches in diameter. The drill in this apparatus is fourteen inches long, five-eighths of an inch in diameter at one end, a quarter of an inch at the other or upper end, which fits into a stone socket, fitted into a wooden mouth-piece to make it more easily held in the teeth—a strong thong of stout seal skin completes the apparatus. In use, the piece of two-inch diameter is held between the knees, the mouth-piece is firmly held in the teeth, the thickest end of the drill placed in one of the grooves, if it is a new piece of wood not previously used, or if previously used into a hole already worn out; then the small end of the drill is placed in the socket of the mouth, and the drill is set in rapid motion by the skin thong which has been placed round it, and worked with both hands.

Mr. E. BIDWELL exhibited and described several fire-syringes in illustration of Mr. Skertchly's descriptions.

Mr. R. PRITCHETT sent for exhibition some full-sized drawings of fire syringes which he had made during the last voyage of the late Lady Brassey in the *Sunbeam*.

The Secretary read the following Paper:—

On a SAFE CONCLUSION *concerning the* ORIGIN *of the* ESKIMO, *which can be drawn from the designation of certain objects in their language.* By Dr. H. RINK, of Copenhagen.

IN an earlier paper in the Anthropological Institute's Journal,[1] I have endeavoured to give a summary of the Eskimo language and the mutual relation of its dialects in general. In prosecuting the same linguistic study I have been led to a conclusion concerning the different theories on the origin of the Eskimo which I suppose may at least serve to restrict the number of possibilities that this obscure field of research offers

[1] "Journ. Anthrop. Inst.," vol. xv, No. 2, 1885, p. 239.

to our imagination, and in this way to simplify the investigation. In regard to the cradle of the Eskimo race we have before all to discern between their original home and the country in which they have developed their present culture, which is characterised by their capability of procuring means of subsistence in Arctic Regions where no other nation can live. We will confine ourselves to the latter, the *Eskimo culture-home*, and our principal scope will be that of pointing out one or two necessary conditions for guessing the site of this home. It is well known that the regions at our disposal for these considerations are of enormous extent, comprising the continental seaboard and the islands of America beyond a line varying between 56° and 60° N.L., including Greenland and the extreme north-eastern corner of Siberia. This territory was occupied by the Eskimo as its only inhabitants before their modern contact with the European race. We divide them into Eastern and Western, separated by Cape Bathurst in about the middle of the coast-line from Hudson's Bay to Bering's Strait. The Eastern Eskimo comprise the Labradorians, the Greenlanders, and the Central Tribes; the Western embrace the inhabitants of the shores about the estuaries of the Mackenzie River, and those of the extreme West including the Asiatic Eskimo. However, with regard to the question as to what part of the coast the first Eskimo settlers arrived, Greenland and the most northern islands must of course be exempted. Consequently the Eskimo culture-home has to be sought for between the extreme south-eastern point of Labrador and somewhere on the Siberian coast in the vicinity of Bering's Strait. The conditions, above alluded to, that have to be observed in prosecuting our research upon this extensive line, are in the first place, *that only one such culture-home can have existed*, and secondly, *that even this one must have had a relatively small extent.* It must be considered impossible that the settlers should have arrived in two or more detachments at the Arctic or sub-Arctic sea-coast, and there developed their Eskimo culture independently of each other. Certainly there are several reasons for believing that after the dispersion of the first settlers had begun, new emigrants from the interior joined these pioneers even in places distant from the culture-home, but in this case they wholly adopted the habits of the latter, and in doing so became amalgamated with them. As to the "relatively small extent" of the "home," this has to be taken as small, judged by an Eskimo scale of distances between their establishments: the settlers must have been able to maintain a certain degree of mutual intercourse.

The extraordinary uniformity alone of the utensils, instruments, and weapons common to all the widely spread tribes, is

suggestive of one common origin. However, it might be objected that this uniformity was a natural consequence of the causes that have given rise to the inventions being almost the same everywhere, leaving but little chance for variation. I therefore resorted to the testimonies preserved in the language. In settling on the border of the ocean and adopting an altered mode of life *the new comers must have been obliged to form a number of new words* designating partly the natural objects, especially the animals which for the first time they met with here, partly the contrivances which the struggle for existence had driven them to produce. Scanning the whole series of such objects there could be no doubt as to which of them should be preferred as the most important. It is well known that seals and whales afford almost all the means by which the Eskimo are able to secure themselves a comfortable life, and that their art of catching them has attracted the admiration even of the civilised world.

The new words which had to be created could be formed partly out of the already existing stem-words by derivation, partly by inventing new radicals. It is evident that in our investigation here by far the most stress must be laid on the latter. A selection of the most important words of the said kind was easily extracted from the Greenland and the Labrador dictionaries, but the question was how to find the counterparts in the much poorer vocabularies of the other dialects. The problem was that of instituting a comparison between the words by which the same objects are designated in the dialects east and west of Cape Bathurst, ascertaining how far identity or similarity could be discovered. I picked out 36 words relating to seals and whales and their capture. They were identical in the language east and west of Cape Bathurst, and are with few exceptions found in the vocabularies even of the extreme west; about two-thirds of them are classed as stem-words in the Greenland dictionary. They are as follows:—

1. The spotted seal, *qassigiaq* (*Phoca vitulina*).
2. The fiord seal, *natseq* (*Phoca hispida*).
   do. old male, *tiggaq* „
3. The thong seal, *ugssuk* (*Phoca barbata*).
4. Saddleback seal, *qairolik* (*Phoca grænlandica*).
5. Walrus, *âveq*.
6. Balæna mysticetus, *arfeq*.
7. Beluga leucas, *qilaluvaq* (white whale).
8. Narwhal, *tûgâlik*.
9. Swordfish, *ârdluk* (*Orca gladiator*).
10. Blubber, *orssoq*.

11. Walrus and narwhal tusk, *tûgâq.*
12. Whalebone, *sorqaq.*
13. Edible whaleskin, *mâtak.*
14. A seal's breathing-hole in the ice, *agdlo.*
15. The open skinboat ("Women's boat"), *umiaq.*
16. One-bladed paddle, *angût.*
17. Mast, *náparut.*
18. Sail, *tingerdlaut.*
19. Kayak, *qajaq.*
20. do. side lath, *siârneq, apûmak.*
21. do. rib, *tigpik*
22. do. prow, *niutak.*
23. do. cross piece, *masik.*
24. do. paddle double-bladed, *pautik.*
25. Shaft of the large harpoon, also the harpoon itself, *unâq.*
26. Flexible part of this shaft, *ipimaq.*
27. A bone-cover on the shaft, *qâteq.*
28. The loose harpoon-point, *tûkaq.*
29. The action of throwing and hitting with the harpoon, *nauligpoq.*
30. Throwing stick, *norssaq.*
31. A peg for finger-rest on the harpoon, *tikâgut.*
32. Capturing line, *aleq.*
33. do. bladder, *avataq.*
34. Spear or knife for stabbing, *qapût.*
35. Bladder arrow, *agdligaq.*
36. Bird arrow, *nueq, nugfit.*

This list indeed exhibits a more complete selection of the most important words concerning the marine mammalia and their capture than might have been expected from the scanty linguistic resources of the West. If now, instead of some among them that already may have been used in an earlier home (*e.g.*, Nos. 16, 22, 34), we would add objects from other domains, but also more or less closely bound up with the idea of a sea-coast, as *e.g.*, salt water, ebb and flood, the polar bear, sea birds, and other animals, similarity or absolute identity might be pointed out in the same way. But the above selection, I suppose, will suffice for our present considerations; its number of words widely exceeds what might be necessary for proving *a common origin, and excluding the possibility of an accidental likeness* or an invention by settlers on the sea-coast without sufficient opportunity of exchanging their ideas.

From this consideration of what may be stated with certainty, we will pass to what furthermore may be concluded with more

or less probability. In the paper quoted above, I have suggested that the culture-home in question occupied the mouth of a river or of several rivers, and that in the course of time it would receive settlers from the interior, while on the other hand emigrants successively spread from this home over the Arctic regions. In a small volume on "The Eskimo Tribes," published in 1887,[1] and chiefly dealing with linguistic questions, I have tried to show how the dispersion of the Eskimo seems to have continued, supposing Alaska to have been the culture-home. The track of the wanderers appears to be indicated by the following facts still to be observed in the state of the present inhabitants, going from West to East:—

1. The successive completion of the most valuable invention, the kayak with its implements and the art of using them, especially the double-bladed paddle, the great harpoon with the hunting bladder, the kayak-clothes, and the hunter's capability of rising to the surface again in case of being overturned.

2. The gradual change of several customs in the same way in proceeding from South and West, to North and East, namely, the use of labrets or lip ornaments ceasing at the Mackenzie River, the use of masks at festivals ceasing in Baffin's Land, the women's hair dressing gradually changing between Point Barrow and Baffin's Bay.

3. The construction of buildings and at the same time in some degree the social organisation and religious customs. The gradual, but still only slight change in all these features of the state of culture seems to go side by side with the increasing natural difficulties and the stupefying effect of isolation in removing from the original home.

If in this way we maintain the supposition of the Eskimo culture having been propagated from the extreme West to the East, the number of the wanderers who brought it may nevertheless have become augmented by Easterly Tribes. As above alluded to, inland people of the Eskimo race, yielding to the pressure of hostile Indians and retiring to the North, may have met and associated with immigrants of their own nation, who already had reached the central regions beyond Cape Bathurst. But in this case the former must have learned and adopted the new culture from the latter. This suggestion even may serve to explain several differences between East and West, and the relatively large number of emigrants to Greenland.

Now there still remains a theory to be touched on which, moreover, must be called the oldest and perhaps still the most popular one, namely, that of an emigration from Asia. This

[1] "Meddelelser om Grönland," vol. xi.

suggestion is supported by several, certainly somewhat isolated, but nevertheless striking similarities between Asiatic and American aborigines. But there is at any rate one question also in this case previously to be settled, and this is again that of the probable situation of the culture-home. Considering the manner in which Bering's Strait can be crossed and the means of securing subsistence for settlers on its shores, an emigration can hardly have been effected excepting by perfectly developed and fairly equipped Eskimo, and consequently the cradle of their culture in this case must have been situated in Asia. Whether this may be judged possible or even probable, must depend on more comprehensive researches than have hitherto been made concerning the archæology and geography of North-Eastern Siberia and the traditions of the inhabitants thereabout.

Since my last paper in 1885 my sources of information have been added to by the following eminent explorers :—

A. Jacobsen ; his "Journey in Alaska, 1881–83," edited by A. Woldt, Leipzig, 1884. Jacobsen also furnished me with much information and a written vocabulary from North and South Alaska, and quite lately I had the opportunity of inspecting under his guidance the admirable ethnological collection from Alaska, procured by him for the "Museum für Volkskunde" at Berlin. At my request he also gave me a list of Eskimo words belonging to those especially referred to before.

P. H. Ray ; his "Report on the Point Barrow Expedition," Washington, 1885. This work contains an excellent supplement to the earlier vocabularies from Alaska.

J. Murdoch, member of the same Point Barrow Expedition, has suggested a theory on the migrations of the Eskimo deviating from mine ("American Anthropologist," April, 1885), but he has afforded me valuable information by pamphlets and reprints as well as by letters.

F. Boas, the well-known explorer of the Central Regions ; his principal work, "The Central Eskimo," Washington, 1889. I have had the opportunity of co-operation and of personally conversing with him, and am indebted to him for very extensive information by letter. He agrees with me in asserting ("Science," December 2, 1887) that the Eskimo reached the ice-covered ocean in one body.

G. Holm, our well-known explorer of the hitherto unknown part of Danish East Greenland, his admirable work on the "Ethnology of East Greenland" ("Meddelelser om Grönland"), besides much co-operation and ready assistance.

Discussion.

Dr. J. Rae said he had listened with keen attention to the admirable paper of that most distinguished anthropologist, Dr. Rink—certainly the highest living authority on the Eskimos of Greenland—but however praiseworthy the paper was, the speaker could find nothing in it to induce him to alter in the slightest degree the opinions he had formed regarding the original home of or route followed by the Eskimos in their migrations. When with the Eskimos he generally had the advantage of an excellent interpreter. Through him he learnt that the tradition of the "Innuit" was that they had come from the West, "the setting sun," and that in doing so they crossed water—supposed Behring Strait. Everything in the Eskimo's appearance leads to the supposition that originally he was an Asiatic; he is at least wholly un-American. The ruined yourts, so numerous on the shores of North-Eastern Siberia, were considered by the speaker to have been their homes, as almost exactly similar homes are now used by the natives of Northern Greenland, those of South Greenland having conformed to the Danish customs. The Eskimos are readily adaptive; thus when they came to America they found plenty of drift wood, and therefore built their winter houses of it, but not using the wood for fuel, but the stone lamp and oil as of old. They have also used the oo-miak, or woman's large skin boat. These—both boats and timber house—were in use for 600 or 700 miles between Behring Straits and the Mackenzie River. But from this point eastward all this was changed, because there was little or no wood, and few or no walrus or whales, so snow huts, the warmest of any shelters where there was no abundance of oil for fuel, were constructed. Also no oo-miaks were required or used, because the Eskimos lived chiefly on land animals—reindeer and musk cattle principally. This state of things was maintained for fully three thousand miles to Hudson's Bay. When the Eskimos reach Greenland, however, and find themselves as formerly among the large marine animals, as when near Behring Strait, they not only resume their old form of half-underground house, of stone, earth, and bones (so well described by Dr. Kane), but they also build oo-miaks similar to those at Behring Strait. Dr. Rae said he had the Chairman's authority that the form of head of the Western Eskimos differs extremely from that to the east—the former being brachy-cephalic, the latter the very reverse. He had also carefully studied Dr. Simpson's excellent description of the natives about Behring Strait, and could in no way reconcile it with his own observations of the Eskimos eastward of the Coppermine River. Dr. Rae could not help thinking that the so-called Eskimos of Behring Strait were crossed with some other race—Indians—which would tend to produce the form of head they have. A cross with the Indians to the east is most unlikely to have taken place, as the two "*nations*" have always been and still are at enmity with each other.

Professor A. C. HADDON gave a verbal abstract of the following paper, and illustrated his remarks by the exhibition of a series of specimens from New Guinea :—

The NATIVES *of* MOWAT, DAUDAI, NEW GUINEA.

By EDWARD BEARDMORE.

(Communicated by J. G. FRAZER, ESQ., M.A.)

KATAU is the original or proper name of this place as well as of the river. [See Map, Pl. x. in the current volume of this *Journal*].

"Mowat," which has been altered I fancy by surveyors to "Mowatta," belongs properly to a place on the coast some 30 miles east from here, which is still known as "Old Mowat," whence the forefathers of these people were driven by the hostility and constant raids made on them by more powerful tribes from Kiwai and Paramoa (Bampton Island). Finding the proprietors of this district friendly disposed, they arranged to settle part at Tura Tura, three miles distant, and the remainder here. Gradually interests became severed, and now each people regards the other as a distinct tribe.

The Mowat tribe is divided into different clans each having its own totem, the animal being held sacred and the flesh not partaken of by the members of that clan. A representation of the totem is not cut on any part of either men or women, but the latter have some mark made to denote the clan.

They have not the custom of a man changing his name at any time or for any reason whatever.

The coastwomen wear a band of grass from the waist downwards between the thighs, and fastened again to a band on stomach.

Bushwomen wear grass petticoats from the hips to a little above the knees. Coastmen wear anything or nothing. Bushmen wear a band of rattan cane round the waist with leaves suspended behind.

No ceremonies are observed at birth, the mother is neither secluded, nor regarded as unclean, nor does she observe any rules as to diet, nor have to undergo any ceremony before being re-admitted to society. The *couvade* is not practised.

The child is named by the father with one name only, according to his fancy, without any regard to his tribe or family.

There is no ceremony like baptism, nor any god-parents. There are no special observances in regard to infants whose elder brothers or sisters have died previously. Children are not killed at birth.

The children do not take the name of either parents, clan or tribe, but they belong to the father's tribe. In the case of twins the mother's brother adopts one child, but without any ceremony.

On the lads arriving at puberty, a feast is held and the lads' health drunk in an intoxicating liquor *komata* [*kava*] obtained from a plant grown locally. There are no rites at which a boy is supposed to be killed, nor are the lads forbidden to see women for a certain time. The only practice is that the youths remain in the men's house for two days to deck themselves with a view to attract the favourable notice of the women. The seclusion is not, so far as I can learn, compulsory but more from vanity, and to consider how the best effect can be produced.

During babyhood the ear-lobes and nasal septum are bored and distended from time to time as the child is growing. I cannot ascertain any reason further than it is a custom handed down; it prevails amongst all the tribes.

On approaching womanhood a Λ-shaped cicatrice is made on the chest to prevent the breasts dropping. When a brother spears his first dugong or turtle, marks are made on some part of the body of the women. No ceremonies accompany these operations. Only the women are scarred.

[There appears to be also some clan mark.]

No ceremony is held on girls arriving at puberty except a feast at which no komata is drunk. Neither at her first nor at any subsequent menstruation is a woman secluded, or has she to obey any rules. They bathe until the courses are passed. They believe the moon's changes to be the cause of menstruation. It is believed in the event of a man having connection with a woman during menstruation that slow death ensues after relation with another woman.

There appears to be no restriction as to marriage within or without the same tribe or clan. Adultery is commonly though not openly practised. I cannot find out for a certainty what are the forbidden degrees of consanguinity in relation to marriage, but as far as practicable the members of one family or descendents of one forefather, however remote, may not intermarry. Polygamy, but not polyandry, is practised: their reason for this custom is that the women do the principal part of the work in procuring vegetable or fish food. Marriage is arranged by the respective parents when the children are

growing up, or in infancy and by exchange, thus:—if a man has sisters and no brother he can exchange a sister for a wife, but in the case of both brothers and sisters in a family the eldest brother exchanges the eldest sister, and the brothers as they are old enough share equally, but if the numbers are unequal the elder takes the preference. It sometimes happens that a man has no sister and he cannot obtain a wife. Sometimes a wife is procured by purchase. It may also happen that a woman will have the man of her choice in spite of all laws to the contrary. The wife goes to the husband's house. The chief of Mowat has several wives in his house at one village with whom he sleeps and spends part of the day, and also at the other village with whom he spends the remainder of the day when not hunting or gardening. (N.B. Mowat is composed of two contiguous villages.) There are no particular customs practised during the night before marriage. At marriage a fight takes place between the friends of the man on the one side, and those of the woman on the other, but it ends without injury to anyone. The couple usually spend a week by themselves away from the village after the fight. The bride is not veiled, nor are there any bridesmaids or best men. The man cohabits with his wife immediately after marriage; he does not visit her by stealth. There are no customs requiring or permitting connection of the wife with other persons either before or after marriage. There are no occasions on which men have to abstain from cohabiting with women.

[This statement probably requires modification.]

Men do not exchange wives. A widow becomes the wife of the deceased husband's brother. A man may not look at nor speak to his mother-in-law.

They do not believe in a natural death, but attribute even the decease of an old man to the agency of some enemy known or unknown. Venereal diseases are traced back to one man who was chafed on the penis with a rope whilst harpooning dugong. The wound grew into a sore and the disease spread. They endeavour to cure swellings or fractures by cutting the affected part, and internal pains by the laying on of hands by certain old men of the tribe. There are no burial ceremonies: the dead are buried. The spirit of the departed is not feared and there are no superstitions about the bones of the dead. The relatives of the deceased do not observe any special rules after the death, nor are those who have handled the corpse regarded as unclean. Mourners cover themselves with mud and wear a long train of grass from the neck down to and dragging on the ground.

Murder is sometimes avenged by the relatives of the

murdered person, but they are not bound to do so. No instance is known of a man committing murder amongst the people of his own village or of a neighbouring village. No compensation is paid for homicide. A murderer is not regarded as unclean.

Any small patch of land becomes the property of the person only during cultivation: when a man dies the property is equally divided amongst the children, but the girls retain their share only until marriage when the eldest brother takes possession. The youngest child never takes precedence.

Fire is obtained by the friction of wood: there are no ceremonies or superstitions connected with it. Eguon, described as a large bat, is fabled to have introduced fire to Mowat. A legend goes, that a tribe once inhabited Double Island, [Nalgi] (near Nagir) one of whose members showed fire to come from the left hand between the thumb and forefinger, whereupon dissention arose and the people were all transformed into animals, birds, reptiles, fish (including dugong and turtle). Eguon found his way to Mowat, the others to different places in the Straits and New Guinea. There appears to have been some friendly arrangement amongst the snakes, whereby some took to the land and others to the water.

Everything is eaten without regard to persons or occasions, except the flesh of the porpoise. The porpoise is no more sacred than anything else; souls of the departed having it as a totem enter into it only in the same way as souls of others go into other animals. I was positively assured there was no reason for abstaining from porpoise flesh. Men, women and children eat together. Food is eaten anyhow as to position, often whilst walking about; cannibalism is not practised. The blood of animals is used after being cooked; the sight of blood is never avoided. They never fast. The penis of great warriors slain in battle is cut off and supposed to possess virtue. The finger nails of the right hand only are scraped and the scrapings mixed with the food of the victors. The vulva of women slain is cut off and worn. All the above are for the purpose of increasing the strength and ferocity of those who use them.

A man whose wife is pregnant must not spear turtle or dugong or go forward in a canoe or boat whilst another is in the act of doing so. No ceremonies are performed by the men or women before, during, or after fishing or hunting, nor for the purpose of appeasing the spirits of the animals or fish caught. The bones of the back of the turtle are kept during the hunting or spearing season—that is, during the months of October and November, when they are coupling. At

the close of the season the bones are thrown away and a high festival held of dancing and feasting.

The ground is lightly tilled with hoes. There are no customs or superstitions in reference to agriculture.

There are no ceremonies observed before going to war nor any rules of conduct observed by the warriors or by those left at home.

There is no form of government, but there is one chief to each tribe. The chieftainship is hereditary if the eldest son is old enough to rule, otherwise it is elective.

There are no special forms of oaths or ordeals, neither are there any ceremonies at the making of friendships, peace, etc.

They salute one another by bending the tips of the fingers of the right hand, each hooking the hand or fingers of the other, and then withdrawing quickly. They can only count up to two. They do not count on fingers or toes, nor do their numerals show that they are borrowed from the custom of counting on their fingers. Pebbles or sticks are not used in counting.

They have no method of sending messages or of making records by notching sticks, painting or by knotting cords.

Time is measured by the sun, and the time of day by its position; but they reckon by nights. Only those who live on the sea-shore reckon by the phases of the moon or by the changes of the tide, springs and neaps. The year is determined by the planting and gathering of yams, taro, sweet potatoes, by the coupling time of the turtle and the change of the monsoons. They do not recognize a lunar year or months. There are no ceremonies for the old and new year, nor are there any time-keepers.

During the South-East Monsoon dances are indulged in nightly, but with little preparation as to dress, and are looked upon principally as rehearsals of the great dances which take place during the North-West season when little else is thought of. During the latter Monsoon dances, consisting perhaps, of only one or two variations in step, are continued the whole night, whilst a great part of the day is spent in adorning themselves with a result that is really gorgeous. The decorations consist of grass, green leaves, white feathers, plumage from the cassowary, a fibre made from cocoa-nut leaves, etc. The foliage of the croton, after use, is always put into the ground to grow for future use (I lately saw a New Guinea head-dress on one of the performers in a comic opera). The dances are for amusement and emulation; one party, a boat's crew, pit themselves against another as to which can keep

up the longest. None of their dances are imitations of animals, nor are they of a religious nature.

Sorcery is unknown [this is very doubtful]; but Găbia, the chief, is said to have the power of affecting the growth of crops for good or bad, also of coaxing the dugong and turtle to come from all parts and allow themselves to be taken ("*Năgai malkai*" used to make good luck with the dugong; "*sĭbo malkai*" used to make good luck with the turtle). There are no religious or political associations: they do not worship or show respect to any of the heavenly bodies. No reliable information could be gathered about the stars, but star myths do exist which differ from those of the neighbouring islands.

Sacrifices are never offered.

They have no objection to telling their own names or those of the chiefs or to mentioning the name of the dead. The names of persons are never changed.

Sodomy is regularly indulged in, as too great increase of population is undesired amongst the younger portion of the married people. Owing to the existence of disease the boys suffer very much for a long time, and some never recover.

One of the disguises used during the North-West festivities is an imitation of a crocodile's head placed over that of one of the performers; to put it on at times other than those appointed is supposed to result in slow but sure death. [I procured one of these at Mowat, and it is now in the Ethnological Museum at Oxford.—A.C.H.]

A curious custom is that of beating the small boys lightly with sticks during December, to make them grow strong and hardy.

Canoes are made at Kiwai and Paramoa (Bampton Island) but not, I am assured, up the Maikŭsa Baxter River, where the people are cannibals and deadly enemies to all the others this side of their country. Payments are made to suit the purchaser, *sometimes in advance*, but usually by three instalments of shell ornaments (or in recent times of trade, such as tobacco, tomahawks, and calico). The unadorned canoes, with but a single flimsy outrigger, are transferred from one village to another until the destination is reached; each party receiving the canoe being responsible for the payment by the next. The builders, or rather diggers-out, usually deliver at Mowat, from thence the canoe travels to Saibai, then to Mabruăg and from there to Bădu, Moa, and ultimately say to Muralŭg or Năgir. In the case of evasion of payment a row ensues between the immediate parties and the delinquent is injured invisibly [by sorcery] in some way at the instigation of the sufferer.

The wooden harpoon used in killing dugong and turtle is got and worked into shape about Mabruăg, Moa and Bădu and sent in the same manner as canoes to New Guinea, *via* Saibai. [This is slightly erroneous as the dugong spears are, so far as I could learn, entirely made in Muralŭg.—A.C.H.]

The Story of Sidor: The first cause of Death.

Sidor, a Daudai native, had a wife named Si'garu, who one day caught some fish which she ate up all by herself leaving only the bones for her husband: he asked the reason of it and said he could not eat bones.

That night both went to sleep with their heads on one pillow and during the night Sidor's spirit entered into a kangaroo, then into a pig, next into a cassowary and after passing through a wild duck and a snake eventually found its way into a crowned (or goura) pigeon, which flew to the top of a high tree.

When Si'garu got up next morning she could not find her husband, but at last looking up into the tree and recognised him. She procured a stone tomahawk and after warming it at the fire she attemped to cut down the tree but found the wood too hard. During the South-East trade or dry season the tree remained standing and through a blow from the South and one from the East, but a Nor-West storm blew it down and it was eventually carried by the tide to Dĭbri, the dwelling place of Meuri, Sidor's brother. Sidor remained in that portion of the tree which lay close to Meuri's house, the other end of the tree was burned to ashes.

Every morning Nanătara, the wife of Meuri, went to sit in a hole in the tree with her back close to where Sidor was hidden for the purpose of covering her head with ashes. Sidor took advantage of her position and committed a digital assault, which caused her to conceive. In due course the usual signs became apparent which her husband noticed and made inquiries about; all he could learn was that it was probably done by some spirit. Meuri said, "wait until night." A high tide during the night washed the trunk enclosing Sidor still closer to the house, then Meuri cut up the tree into very small pieces. In the morning taking his stone club he questioned the small pieces of wood about the state of his wife, soon Sĭdor was discovered, whom he accused of the treachery and called on him to come and fight to see who was the best man. Sidor struck Meuri with a stone club behind the shoulder but did not kill him. Meuri after lying on the ground a short time got up and asked why Sidor had not killed him right out. Taking his stone club

he struck Sidor on the head just behind the ear killing him instantly.

Sidor called out to Si'garu saying he was dead. His spirit then came out leaving his bones with Meuri at Dĭbri. Sidor's spirit went to a sand-bank and waited for the birds which came from all quarters, and which asked if it was a man on the sand. Sidor sent a message by the birds to Si'garu to tell her to take his bones home to Kiwai. Instead of delivering the message as directed, they gave it to Umo and A'hau, mother and grandmother respectively to Sidor. They, on asking for Sidor's whereabouts, learned he had gone to Vigoë (Boigu or Talbot Island) in a dugong.

On his arrival at Vigoë, Sidor left the dugong and entered a house occupied by some Vigoë men. He then sent a message by a cockatoo, telling Umo and A'hau not to look for him as he would return to his family after a stay of seven months. They, however, became impatient, and taking his skull filled it with water and went to look for him.

Umo and A'hau arrived at Vigoë when he was dancing with a number of kindred spirits, but not recognising him he was pointed out to them by some Vigoë men. His female relatives astonished Sigor by offering him a drink of water from the skull; on asking what it was, he was informed that it was his own skull. Sidor took the skull and threw it away, telling Umo and A'hau that through their action in looking for him all men must die, which would not otherwise have happened and everyone would have lived for ever. He bade them good-bye saying he was going to Wibo—the abode of spirits—and disappeared.

NOTES *on* MR. BEARDMORE'S PAPER.

By ALFRED C. HADDON.

Mr. J. G. Frazer having provided me before I left home, with several copies of his "Questions," I gave one to my friend, Mr. Beardmore, when I visited him at Mowat, in August, 1888. Mr. Beardmore had resided for some time at Mowat, and had very friendly relations with the natives. His account has the additional value of being the first description we possess of any of the customs of the inhabitants of that portion of New Guinea which is known as Daudai. So far as I am aware Wyatt Gill and d'Albertis are the only travellers who have given us any in-

formation respecting the Kătau natives, and to render Mr. Beardmore's paper more complete I have abstracted those accounts in addition to a few notes of my own.

In all cases the notes in square brackets [ ] are made by myself.

The ordinary petticoat of the Mowat women is called *maiwas:* it consists of a narrow (about 3½ inches) and a broad (about 8 inches) fringe of frayed leaves, fibres, etc., dyed in various shades of brown, yellow and russet, and from 50 to 60 inches in length. The fringes are worked into a waist belt, there being a space of about 8 inches between them. A loop finishes off the small fringe end of the band, and there is a long plaited string at the other. The outer side of the very deep part of the belt, from which the broad fringe depends, is ornamented with an appliqué plaited band of yellow and black split leaves, arranged in a zigzag manner, the ground fabric being usually painted red. In putting on the garment this latter portion goes behind, so the fastening is on the left side. The narrow tuft which hangs down in front, is doubled up and tucked between the legs, and the hind fringe is passed forward between the legs and doubled once, the fold of which is tucked under the band in front, half on each side of the insertion of the narrow portion. The whole dress thus consists of an untidy looking wisp of "grass" passing backwards and forwards between the legs.

At the mouth of the Fly River (Kiwai, etc.) a very similar petticoat is worn, but it is slightly more scanty, and is said to be made of the split leaves of the Sago palm (*bisi*). I believe the Mowat name for Sago is *dau* or *doe-ori.*

A second form of petticoat, sometimes worn at Mowat, is the *maiděk*; this is an almost continuous leaf petticoat hanging down to the knees, but there is a small gap on each thigh. This form resembles that worn on Saibai and Dauan.

The *wŏpa* or *wapa* is the full petticoat worn by more inland tribes.

The men wore no clothes. Their ornaments and weapons are the same as those of Torres Straits.

I was informed that the men have no relation with the women during the turtle-season, *i.e.*, the time when the turtle are coupling, but there is usually considerable laxity of morals at other times.

At marriage the woman is dragged out and there is a slight fight.

Children by the same father, but not by the same mother are not reckoned as brothers and sisters. Women have no property(?)

Cutting and bleeding is resorted to for all kinds of illness or pain. They believe (I was informed) that all sickness or death

is caused by sorcery. The leaf or convolvulus-like plant is applied externally for sores, and a decoction of the same plant is taken to improve the blood and also to procure abortion.

A large number of the women have a Λ-shaped scar above the breasts ; as an example of the difficulty of getting information casually I may mention that Mr. Beardmore gives one reason for this cicatrice. Maino of Tud told me that it was cut when the brother leaves the father's house and goes to live with the men, and another informant's story was that it was made when a brother harpooned his first dugong or turtle. Maino (who by-the-bye married a Mowat woman) said that a mark on the cheek recorded the brother's prowess. In describing the natives of "Waighi" (? Wigi) at the mouth of the Fly River opposite Parem d'Albertis (II, p. 198), says "the woman on the contrary calls for no particular remark ; she is not to be distinguished from the women of Moatta [Mowat]. She is, however, tattooed in the centre of the chest, between the breasts, with a design like a capital A. At Moatta I never saw either men or women tattooed." I cannot account for this discrepancy.

The longest house in Mowat is about 80 yards long: the compartments on each side each lodged one family. In the other part of this double village there is a smaller long house with no partitions for the single men ; the single girls, I believe, live in small houses.

Mr. Beardmore gave me a shell hoe from Mowat, which is now in the British Museum. It is made from a piece of Melon shell (*Cymbium*) inserted into a hole in a rough wooden handle, the shell being wedged in by one or two pieces of wood. D'Albertis has a small figure of one in vol. II, p. 378, fig. 11. This rude hoe is only used on soft ground. The fluviatile clam, *Cyrena*, is used as a spoon, ladle and scraper, and is exported to the islands of Torres Straits. This and a shell saucepan (also a Cymbium shell) are in the British Museum. I have also from Mowat a food vessel made by cutting the top off a large cocoa-nut, the rim of which is marked externally by a circular incision and radially by short notches ; the outside was blackened. I never saw a similar vessel in the Straits, nor is there any record of such occurring.

In the last number of the *Journal* I have incidentally alluded to the relations between the people of Mowat and the inhabitants of Torres Straits.

Extract from "Life in the Southern Seas, or scenes and incidents in the South Pacific and New Guinea."

By Rev. W. Wyatt Gill, 1876.

(1872.)

Mowat.—"The part of New Guinea from the western limits of the Katau district (indicated by a river opposite the uninhabited islet Kau) to Bristowe Island, is called *Mauat* by the natives themselves and by the Torres Straits islanders" (p. 235).

Katau is situated at the western mouth of the Katau river. "Opposite to our place of meeting [with the chief Maino] was a huge pile of bones of the dugong (*Halicore australis*), and rows of pig's jaw bones." (p. 232). "These Mauat men are a fine race, above the average height, nearly black; their hair is woolly; their heads for the most part shaved. Their ears were universally slit, and elongated by means of weights, but with a regular series of holes, in each of which was inserted a short piece of the mid-rib of the cocoa-nut leaf. Their bows, upwards of six feet in length, are the best I have ever seen. They are made of male bamboo, highly polished, strips of which are used as string. These bows carry to a great distance. Their arrows are of reed; those intended for killing game (four feet long) are pointed with hard wood, and, of course, are not poisoned; while those intended for war (five feet long) are pointed with human [? cassowary] bone, barbed and dipped in deadly vegetable [?] poison. The bones selected for this purpose are the small bones of the arm and leg. A cane sheath is invariably worn on the left arm to protect the archer from abrasion" (p. 239).

"One of our party walked into the Bush at Katau for two miles, among luxuriant plantations of bananas and taro. The country was almost a dead level, the soil of the richest description. These villagers insisted on making us a present of food" (p. 240). [Brief descriptions are given of pipes and canoes, p. 232; drums, p. 236; head dress, p. 237; and bamboo knife, p. 237.] "The population of Katau may be estimated at four hundred" (p. 241).

Tureture.—"The chief, Auta, is a man of mild aspect, but inferior in muscle and bearing to Maino. According to the custom of these people, presents and names were exchanged. By this proceeding, the persons of their visitors became sacred. A flourishing tobacco plantation was close by" (p. 233).

"They call us 'Malakai,' *i.e.*, 'ghosts' or 'spirits.' The heathen of this part of New Guinea and of the Straits invariably associate the idea of *whiteness* with their notion of a spirit. Our

gifts were eliptically designated 'Malakai,' *i.e.* (belonging to) spirits" (p. 234).

[Mr. Gill obtained this information through a Loyalty Islander, one of his "teachers." It is undoubtedly this S. Sea man's way of pronouncing the Torres Straits Western tribe's name for "spirits" (*Merkai* or *Markai*). As is well known a vowel must in their language separate two consonants, so we have "*Marakai*," and as *r* and *l* are interchangeable even in places not far apart, *Malakai* is naturally arrived at. I have noticed the same variation myself. I believe that *oboro* is the ordinary Daudai name for "spirit." D'Albertis gives "*turicarubi*" as the Mowat name for "white man," and Beardmore in the MS. vocabulary, he gave me, "*terri-car-ouby.*"]

"When ready to start, these amusing savages simultaneously raised the right hand palm open and most gracefully bade us 'Iauā' [Iu.o ?] 'Farewell'" (p. 235).

"Each domicile here, as at Katau, is of great length, built on lofty piles, and provided at each gable-end with a wide verandah and a ladder. To peep into one is like looking through a railway tunnel, light appearing at the other end through a small door. The object in building on piles is security against alligators [crocodiles], serpents and the annual inundations. In the wet season the natives are compelled to go to their plantations on the higher ground in canoes (p. 239). Their houses are thatched with the leaves of the sago-palm, which grows freely in all parts of Western New Guinea. We climbed up a rough ladder in the largest house in Torotoram (*sic*). The front verandah would seat a dozen adults. The flooring throughout was of cabbage-palm. From the verandah a door opens into the interior, on both sides of which are slight partitions of bamboo, dividing off spaces large enough to allow a man and his wife to sleep on the bare boards (p. 240). There is neither door nor screen, a rough fireplace of clay is allotted to every pair of cribs, the smoke driving away mosquitoes. Close to each berth is a shelf for tinder (bark of the *Melaleuca*) and firewood, which is also available as a sleeping place for a young child. For the elder children there is no accommodation in the house. To the best of our judgment there must have been inside this building, accommodation for from sixty to eighty couples. The chiefs have houses of their own. In each Mauafort village there are two large houses—one for boys, the other for girls. Elderly custodians are duly appointed to keep the young people in order. This custom obtains on Saibai and Bampton Island (Barama) [*sic*], proving these islanders to be colonies from 'Little Daudai.'

"The population of Torotoram [*sic*] may be estimated at five hundred" (p. 241).

"A symmetrical scar is made on the shoulder of all males in Mowat and in the Straits."

Extract from "New Guinea: What I did and what I saw."

By L. M. D'Albertis. Vol. II, 1880.

Mowat (1875–76).

Mourning.—Men painted yellow and white—women daubed from head to foot with mud—"the women add to the paint a curious kind of scarf made of a great number of cords, which, descending from the neck, both before and behind, covers the body almost down to the feet, and is gathered in and bound over the hips with a girdle of cord. Their arms, and legs below the knee, are covered with bracelets and anklets similarly composed of cords" (p. 9). [I obtained one of these; it is now in the British Museum.]

Village. "Five or six houses built on piles of no great height. Each house is inhabited by several families, and is divided in the middle into two compartments right and left by a sort of corridor; these two compartments are further sub-divided into several smaller ones. . . . . They have two fronts, one facing the sea—which is at no great distance from them, the other facing inland. . . . . On going out of the door which looks inland, we saw about thirty human heads suspended like trophies [Maino's house] The jaw bones were removed from the skulls [of bushmen], and we saw some in a corner ornamented with feathers, and so arranged as to be used as bracelets, which are called 'bago' by the natives. "Here we also saw a devil's house for tortoises, but it was of much less imposing dimensions than that of Moatta" (p. 10). [*sic?* Dauan, *see* current volume of this *Journal*, p. 390.]

Plantations.—"Large plantations of cocoa-nut palms, yams and bananas which are generally surrounded by a high stockade to preserve them from the pigs" (p. 11).

Fishing.—Much given to fishing. Live a great part of the year entirely on the produce of the Warrior coral bank.

Pillows.—Many of the natives use wooden bolsters, made of the root of the Mangrove, and representing curious animals. One represented a reptile, another a kind of siren, *i.e.*, a reptile with a human head. Call them "Muci" (p. 11).

Physical character of people.—"The people I saw were generally good looking and of lofty stature, the women especially being tall

and robust. The men are usually perfectly naked; the women, however, cover themselves with a little grass. Without being absolutely black, their skin is very dark, although I saw some of them who were almost copper colour. Much struck by varieties of type, and especially by the likeness of some of the adults and old men to Arabs. Their hair was for the most part short, and one can easily see that it is equally distributed all over the head; when, however, they wear it long, it curls and forms separate ringlets four or five inches long. After their fashion they pay much attention to their coiffure. The ringlets are quite separate from one another, and each is carefully smeared with earth. When the hair is not long it looks woolly; and until it is examined when cut close it would be supposed to resemble that of the negro, but in reality it is quite different. The use of earth, and also of ashes, gives a ragged appearance to the hair, and changes the colour of it. Many of the people are affected with skin diseases, especially with that known by the name of 'Cascado,' and ulcer in the leg is a common malady. The children, on the other hand, appeared to me to enjoy excellent health. Their limbs are very slender, and their stomachs extremely protuberant" (p. 12).

Graves.—"At 400 or 500 yards to the west of the village, and not far from the sea, we saw a place where the natives bury their dead. The graves are enclosed by a strong palisade. A quantity of bananas and cocoa-nuts hung from a stake inserted in the palisade. In addition to these provisions, a bow and some arrows were also suspended" (p. 12).

Maino "informed us that he had himself cut off 33 heads in this manner [with a mere turn of the operator's wrist]; and to make his words good, he took out of his bag a collection of pieces of wood and old tips of arrows, which he arranged before us in a row. Every one of these represented to us a murder—to him a deed of valour" (p. 17).

Maino, chief of one half of the village of Mowat, was born and educated in the village of Kiwai. A long description is given of his appearance and martial character and of those of his two sons (p. 150, also p. 197).

"Early in the morning, several women are to be seen passing along the strand on their way to work in the fields. Each woman is accompanied by her husband, who walks at her side armed with bow and arrows. The women are laden with provisions for the day. They often have a child astride their shoulders and are followed by two or three others who run after them like lambs after a sheep or two or three dogs" (p. 170).

"Burial of a child a few months old, near a small plantation of cocoa-trees. The little body was wrapped in a small piece of

matting and laid on some soft grass, as in a little bed. It was partly covered with a piece of woollen shirt, and the wrists were adorned with coloured string." . . . . The mother, "after sprinkling a little sand on the grave . . . . placed on it some cocoa-nuts, a little basket with an old cocoa-nut used for drinking water, a shell which the natives make use of for various purposes and a knife" (p. 179).

"The women here differ very much from the men. They are always of a lighter coloured skin and more prognathous. I observed that their hair, which they wear very short, grows evenly over the scalp" (p. 189).

"The women have small breasts which slant upwards, differing in this from the inhabitants of some of the islands in Torres Straits" (p. 189.)

Mowat men went to fight the Bushmen. "They did not come back until towards evening, when they entered the village in marching order of three columns. They made a short halt before entering: . . . . They certainly went through a ceremony of some kind—some carried on their shoulders a kind of litter made of cocoa-leaves—they were bringing back a dead body and a wounded man" (p. 194). "In token of war, Maino's beard is plastered with clay" (p. 196).

September 26th.—"The natives of Moatta went over this morning to the village of Ture-ture, to a feast and a dance. They were all painted black from head to foot, the white shells worn on the necks of the younger ones, standing out distinctly on their black skins. The sons of the chiefs wore a breast-plate of mother-of-pearl. Several were adorned with cassowary plumes, set in a circlet of white shells. They were armed also with bows and arrows" (p. 196).

Maino "brought me some roots of a plant, which the natives chew for its narcotic and intoxicating properties. Maino explained that to experience its intoxicating effects perfectly, tobacco should be smoked after chewing a certain quantity of the root" (p. 197).

"I bought some pieces of a large sea-shell, which, sharpened at one end and fixed into a handle, serve as spades" (p. 199).

ANNUAL GENERAL MEETING

JANUARY 28TH, 1890.

PROFESSOR W. H. FLOWER, C.B., F.R.S., *Vice-President, in the Chair.*

The Minutes of the last Anniversary Meeting were read and signed.

The CHAIRMAN declared the ballot open, and appointed Mr. G. M. ATKINSON and Mr. E. LAWRENCE Scrutineers.

Mr. A. L. LEWIS, the Treasurer, read his Report for the year 1889, as follows:—

TREASURER'S REPORT FOR 1889.

The total receipts for the year 1889 have been £585 11*s.* 10*d.*, being £27 0*s.* 2*d.* less than last year. This falling off, so far as it affects the position of the Institute, is perhaps more apparent than real, as it occurs in the annual subscriptions, which last year included £33 12*s.* more of arrears than are included this year. The sale of the publications has slightly increased.

The amount expended during the year was £678 13*s.* 1*d.*, being £93 1*s.* 3*d.* more than the receipts, and £33 10*s.* 1*d.* more than the expenditure of last year. The members have, however, had the full benefit of this extra expenditure, £35 8*s.* 9*d.* more having been spent on the *Journal* than was spent last year, while the extra weight of the *Journal* has necessitated a slight increase in postage. About £10 more have been spent in miscellaneous printing in consequence of the operations of the Committees of the Council—firstly, for aid in conducting Anthropological and Archæological Explorations, and, secondly, for arranging for Popular Anthropological Lectures; but it is hoped that the results of these operations will directly or indirectly more than repay the amount expended upon them. The other items of expenditure are of about the same amount as they have been for the last two years.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.

Receipts and Payments for the Year ending 31st December, 1889.

RECEIPTS.	£	s.	d.	£	s.	d.
Balances, January 1st, 1889:						
At Bankers	93	9	7			
Petty Cash	5	6	11			
				98	16	6
Subscriptions:						
For year 1889	371	14	0			
,, ,, covering 1890	10	10	0			
Life Compositions	63	0	0			
Arrears	36	15	0			
				481	19	0
Sale of Publications:						
Messrs. Trübner & Co.	68	11	6			
Messrs. Longmans & Co.	0	16	0			
Office	3	11	0			
				72	18	6
Dividends:						
Four quarters on £900 3½ per cent. Metropolitan Board of Works Stock (less income tax)				30	14	4
				£684	8	4

PAYMENTS.	£	s.	d.	£	s.	d.
Rent, one year to Michaelmas, 1889 (including coal and gas)				165	0	0
Printing:						
Journal, Nos. 64, 65, 66, 67, including illustrations and Authors' copies				224	13	5
Salaries and Collector's Commission				169	8	5
Stamps and Parcels				37	2	8
Advertising				5	7	7
Printing and Stationery				34	3	6
House Expenses:						
Cleaning rooms, &c.	17	0	7			
Attendance and Refreshments at Meetings	22	15	0			
				39	15	7
Insurance and Miscellaneous Expenses				3	1	11
Balances:						
Cash in hand, 31st December, 1889	3	11	0			
Petty Cash	2	4	3			
				5	15	3
				£684	8	4

Examined and found correct,

(Signed) EDWARD W. BRABROOK, ROBT. B. HOLT, } *Auditors.*

Although this Report is not so satisfactory as I could wish it to be, I do not feel that either the Council or the Treasurer has reason to be ashamed of it. As I ventured to suggest last year, it is for the members of the Institute to assist in placing it in a sound financial position, by making its objects and publications known amongst their friends, and by bringing in fresh members to take the place of those who are unfortunately lost from time to time by death or otherwise.

A. L. Lewis,
Treasurer.

Mr. F. W. Rudler, the Secretary, read the Report of the Council for the year 1889, as follows:—

Report of the Council of the Anthropological Institute of Great Britain and Ireland for the year 1889.

The Council has to report that during the past year the Institute has held eleven Ordinary Meetings, in addition to the Annual General Meeting and a Special Meeting at the Royal Aquarium for the inspection of a group of natives of Tierra del Fuego. The Council takes this opportunity of acknowledging the courtesy of the Directors of the Aquarium in offering every facility for the examination and measurement of these interesting people.

The following is a list of the various communications submitted to the Institute at its meetings in 1889:—

1. "Human Remains discovered by General Pitt-Rivers at Woodcuts, Rotherley, &c." By John Beddoe, Esq., M.D., F.R.S., President.
2. "A Demonstration of Centres of Ideation in the Brain." By Bernard Hollander, Esq.
3. Exhibition of a New Instrument for Testing the delicacy of perception of differences of Tint. By Francis Galton, Esq., F.R.S., Vice-President.
4. "The Early Races of Western Asia." By Major C. R. Conder, R.E.
5. Exhibition of an Artificially Deformed Skull from Mallicollo. By Professor Flower, C.B., F.R.S., Vice-President.
6. "Note on the use of Elk Teeth for Money in North America." By Henry Balfour, Esq., M.A., F.Z.S.
7. "Notes on the Modern Survival of Ancient Amulets against the Evil Eye." By Edward B. Tylor, Esq., D.C.L., F.R.S., Vice-President.
8. "On some Ancient Bone and Stone Implements from Chili." By C. H. Read, Esq., F.S.A.
9. Exhibition of Photographs of Megalithic Remains from Japan. By W. Gowland, Esq., F.C.S.
10. Exhibition of Photographs of Megalithic Remains from Syria. By Major C. R. Conder, R.E.

11. "Rude Stone Monuments in the Country of the Carnutes (Department Eure et Loire, France)." By A. L. Lewis, Esq., F.C.A.
12. "The Comparative Anthropometry of English Jews." By Joseph Jacobs, Esq., and Isidore Spielman, Esq.
13. Exhibition of the Skull of Po Tok, a celebrated Burmese Dacoit leader; and of the Skull of Sze Chuen, a rebel Chinese Mandarin. By Captain E. S. Hastings.
14. "The Maoris of New Zealand." By Edward Tregear, Esq.
15. "The Osteology of the Veddahs of Ceylon." By Arthur Thomson, Esq., M.A., M.B.
16. "Notes on the Yoruba Country." By Mrs. R. Braithwaite Batty.
17. "Salutations." By H. Ling Roth, Esq.
18. Exhibition of Skulls found during some recent excavations. By General Pitt-Rivers, F.R.S., Vice-President.
19. "On the Hyksôs." By the Rev. H. G. Tomkins.
20. "Property in Trees." By Hyde Clarke, Esq., Vice-President.
21. Exhibition of some Examples of Pre-historic Trephining and Skull-boring from America. By Professor Victor Horsley, M.B., F.R.S.
22. "Cross-bows, Long-bows, Quivers, &c., of Yoruba." Exhibited by H.E. Governor Moloney, C.M.G.
23. "On the Structure and Affinities of the Composite Bow." By Henry Balfour, Esq., M.A., F.Z.S.
24. "Poisoned Arrows." By the Rev. R. H. Codrington, D.D.
25. "Observations on the Natural Colour of the Skin in certain Oriental Races." By J. Beddoe, Esq., M.D., F.R.S., President.
26. "Manners, Customs, Superstitions, and Religions of South African Tribes." By the Rev. James Macdonald.
27. "The Ethnography of the Western Tribe of Torres Straits." By Professor A. C. Haddon, M.A.
28. "On the Natives of Tierra del Fuego." By Dr. J. G. Garson.
29. "The Natives of Mowat, Daudai, New Guinea." By Edward Beardmore, Esq.
30. "Fire-Making in North Borneo." By S. B. J. Skertchly, Esq., F.G.S.
31. "On the Origin of the Eskimo." By Dr. H. Rink.

In the course of the year four numbers of the *Journal* have been punctually issued—namely, Nos. 66, 67, 68, and 69. These contain 492 pages of letterpress, and are illustrated by 19 plates and several woodcuts.

Twenty new members have been elected during the year —viz., One honorary member, two corresponding, and 17 ordinary members. On the other hand, the Institute has lost by resignation 15 members, and by death one.

Bishop Rónay, whose death the Council have to record with regret, was a distinguished Hungarian prelate, and, while known as a man of liberal sympathies, was much trusted by the Imperial Royal House, having been tutor to some of the Arch-Dukes. He had long resided at the Hofburg, Vienna, where he died.*

In the following table the present state of the Institute, with respect to the number of members, is compared with its condition at the corresponding period of last year:—

* These particulars have been supplied by Mr. C. H. E. Carmichael, M.A.

	Honorary.	Corresponding.	Compounders.	Ordinary.	Total.
January 1st, 1889	41	74	90	224	429
Since elected ..	1	2	3	14	20
Since deceased ..	..	..	1	..	1
Since retired or been struck off	..	..	..	15	15
January 1st, 1890	42	76	92	223	433

It will be seen that the list shows a net gain on the year of four members. It is, however, to be earnestly hoped that the growth of the Institute may in future proceed more rapidly, as its work is at present unfortunately cramped by the smallness of its income. Only a few months ago the Council was reluctantly compelled to decline the offer of a very voluminous manuscript on the Tasmanians by Mr. Ling Roth in consequence of the expense which its publication would have entailed.

A scheme for extending a taste for anthropological studies by the delivery of popular elementary lectures in London and its suburbs, was brought before the Council by Dr. Garson, and was referred to a Committee to report upon its feasibility. This Committee, after holding several meetings under the Chairmanship of Mr. Brabrook, drew up a syllabus, which, having been approved by the Council, has recently been printed and circulated among the members. The Council hopes that by this novel departure it may be instrumental in disseminating a knowledge of the elementary facts and principles of anthropology, and that while thus advancing the general interests of the science it may also be the means of attracting new members to the Institute.

The attention of the Council has been called by General Pitt Rivers to the unsatisfactory manner in which many anthropological and archæological investigations are conducted, and especially to the absence of any systematic method of recording the measurements of human skeletons and those of domesticated animals found on ancient sites. A Committee has consequently been appointed for the purpose of drawing up instructions, and it is hoped that intending explorers will appeal to it for information. A circular to this effect has been distributed to local scientific and archæological Societies. General Pitt Rivers has kindly undertaken the presidency of the Committee of Aid, and will be happy to advise investigators who may communicate with him.

In connection with the subject of archæological exploration, it may be remarked that the Council has learnt with satisfaction that efforts are being made by Dr. John Evans, the President of the Society of Antiquaries, and a Vice-President of this Institute, to raise a substantial fund for the promotion of systematic explorations.

The Council has had under recent consideration the condition of its Library, and at the suggestion of Professor Flower a Library Committee has been appointed. With the view of extending the usefulness of this Department of the Institute, it is proposed to bind a large number of such scientific serials as are likely to be most referred to by our members. At the same time it is felt desirable, as economy of space is imperative, to relieve the Library of a mass of periodical literature which is found to be rarely, if ever, consulted. It is hoped by these and other means, such as the purchase of certain modern works, that the efficiency of the Library may be increased, and its value to our members much enhanced. It is proposed to meet the exceptional expenditure, which will thus be incurred, by applying to the Trustees of the Institute to sell out a portion of the Sydney Ellis bequest, a fund which was received ten years ago for the general purposes of the Institute, but which has been drawn upon only on the occasion of the removal of the Institute to its present Rooms, when special expenditure became necessary.

The preparation of the new edition of the volume of "Notes and Queries" is making rapid progress. The Committee for carrying out this work has deputed the practical editing to Dr. Garson and Mr. C. H. Read, and a large part of the volume is already in type.

The Council has noted with pleasure the issue of Mr. J. G. Frazer, of Cambridge, of a Schedule of questions relating to the manners and customs of uncivilized and semi-civilized peoples. In order to give greater publicity to this scheme the questions have been reprinted in the *Journal* of the Institute, and several sets of answers received by Mr. Frazer have been already read at our evening meetings.

One of our Vice-Presidents, Professor Flower, presided over the meeting of the British Association at Newcastle-on-Tyne; while the special interests of our science were ably represented by Sir William Turner, as President of the Anthropological Section, with Dr. Garson and Mr. Bloxam as two of the Secretaries. Not only were the meetings of this Section well attended and highly popular, but the temporary Anthropometric Laboratory in connexion with the Section proved, as usual, highly attractive. The manifestation of so much interest in

anthropological subjects at the British Association meetings has not been without its influence in determining the action of the Council with reference to the proposed course of popular lectures on the Science of Man.

The Reports were adopted on the motion of Mr. MAURICE BEAUFORT, seconded by Mr. J. ALLEN BROWN.

The PRESIDENT'S Address was then read by the Secretary.

At the conclusion of the Address it was moved by Mr. HYDE CLARKE, seconded by Mr. E. W. BRABROOK, and unanimously resolved :—

"That the thanks of the meeting be given to the President for his Address, and that it be printed in the Journal of the Institute."

The Scrutineers gave in their Report, and the following gentlemen were declared to be duly elected to serve as Officers and Council for the year 1890 :—

President.—John Beddoe, Esq., M.D., F.R.S.

Vice-Presidents.—E. W. Brabroook, Esq., F.S.A.; Hyde Clarke, Esq.; J. G. Garson, Esq., M.D.

Secretary.—F. W. Rudler, Esq., F.G.S.

Treasurer.—A. L. Lewis, Esq., F.C.A.

Council.—G. M. Atkinson, Esq.; C. H. E. Carmichael, Esq., M.A.; Rev. R. H. Codrington, D.D.; J. F. Collingwood, Esq., F.G.S.; Sir Lepel Griffin, K.C.S.I.; T. V. Holmes, Esq., F.G.S.; H. H. Howorth, Esq., M.P., F.S.A.; Prof. A. H. Keane, B.A.; Prof. A. Macalister, F.R.S.; R. Biddulph Martin, Esq., M.A.; Prof. Meldola, F.R.S.; Rt. Hon. the Earl of Northesk, F.S.A.; C. Peek, Esq., M.A.; F. G. H. Price, Esq., F.S.A.; Charles H. Read, Esq., F.S.A.; Isidore Spielman, Esq.; Oldfield Thomas, Esq., F.Z.S.; Coutts Trotter, Esq., F.G.S.; M. J. Walhouse, Esq., F.R.A.S.; Gen. Sir C. P. Beauchamp Walker, K.C.B.

A vote of thanks to the retiring Vice-President, the retiring Councillors, the Auditors, the Scrutineers, the Secretary, and the Treasurer, was moved by Mr. J. F. COLLINGWOOD, seconded by Mr. J. WALHOUSE, and carried unanimously.

Anniversary Address.

By John Beddoe, M.D., F.R.S., President.

I am extremely sorry, at the last moment, to find it impossible to be present at this annual meeting, and to thank you in person for the kindness and forbearance shown to me, your President, during the past year, during which I am sensible that, though I have done what was possible to me, that possible was very little. But for the ever ready kindness and assistance of Mr. Galton and Professor Flower, and of the Officers and Council generally, the work could not have been got through. As it is, we have had a not unprosperous year. The scheme of local anthropological lectures promises well; but it is very desirable that the movement to fortify and render more useful our library should be well supported. We have been fortunate in losing only one actual member by death, that one a man of considerable eminence, but by lapse of time fallen out of connexion with the life of the Institute.

I propose to take as my principal subjects this evening Anthropology at the Paris Exposition, and the recent advances of Physical Anthropology.

Nowhere, probably, and at no time have such opportunities been offered for the study of physical anthropology and ethnography as at the Paris Exposition of 1889.

It is true that Russia and Austria, the most composite and varied, ethnologically, of all European countries, were scarcely at all represented; but the great pains that had been taken to bring together everything connected with the French colonial empire almost made up for this deficiency. Thus Algeria and Tunis, the regions of the Senegal and Gaboon, of Annam and Tonkin, of Melanesia and Polynesia, exhibited abundant specimens, not only of their products and handicrafts, their weapons and utensils, their habitations and domestic and religious para-

phernalia, but even of their various native races. China, Japan, Java, and Egypt were also exceedingly well represented. But the greatest attraction was the special anthropological department in the Palace of the Liberal Arts, of considerable extent, and ordered and arranged by several of the most eminent among our French confrères, such as Topinard, Cartailhac, Bertillon, the Marquis de Nadaillac, &c.

The most conspicuous objects in the department were undoubtedly the groups of life-sized figures, whereby the endeavour was made to reproduce the aspect and surroundings of the prehistoric and early historic races. This attempt, so far as I am entitled to pass an opinion upon it, was extremely happy. The forms of the heads, the features and complexions, had been carefully studied: the attitudes and occupations were natural, probable, and life-like: one group in particular, intended to represent the very dawn of art in palæolithic days, and in which two young people were displaying to a grizzled senior, on his return from the chase, their first attempts at carving on bone and ivory the outlines of familiar wild beasts, was to my eye especially admirable. The manufacture of bronze implements was very well represented; and the Gallo-Roman potter's shop was another meritorious production. Crowds of visitors thronged the court in and around which these groups were displayed; and much intelligent curiosity was developed.

In the same part of the exhibition was a contribution from Denmark, sent by Professor Waldemar Schmidt and others, and including two very fine effigies, male and female, of the bronze period, correctly dressed and armed after studies from the tenants of two neighbouring barrows; they were two splendid specimens of physical development. A very fine skull of our bronze type was exhibited as typical of the first epoch of the stone period in Denmark. This form is known to be still abundant in some parts of that country, and must therefore have endured in Denmark since the beginning of anthropological time. Nothing can be clearer than its identification with the type of our own bronze race; and that with the Sion or Helvetic

type is not much less clear, though the average breadth of the Sion skull, as described by His and Rütimeyer, is somewhat smaller. It is certainly abundant in the Ardennes, among the Walloons. But I should be loth to speak further as to its affinities, in the present state of our knowledge. I will not deny that they *may be* Finnish: Bogdanof figures one skull from a kurgan near Moscow, which may belong to this type; but so far as I have seen there is very little evidence to lead us in that direction.

First in importance among the maps and other graphic representations of anthropological fact come, doubtless, those indicating roughly the results of Topinard's great inquisition into the colours of the hair and eyes in France.

In most respects these maps confirm the opinions previously held; but in some points of importance they do not do so. Thus, on the whole, the north and north-east of France are comparatively blond, the centre and the south are dark; but the department of the Creuse forms a blond island, for no reason that can be made out. Distrusting his facts, Topinard instituted a second investigation in the Creuse, in which he employed a second set of observers; but the proportions came out almost exactly the same. Probably we have here the physical record of some prehistoric or unhistoric migration, such as that which in the tenth or eleventh century filled Cumberland and Westmorland with tall, blond, straight-featured men, and with Norwegian place-names; or that other, more ancient, and still mysterious migration, which peopled with blonds the Volscian coast from Gaeta to the River Garigliano.

Side by side with these first-fruits of Topinard's great inquest, was Collignon's map of the cephalic index in the several departments of France. Here, too, I found a general confirmation of existing beliefs or conjectures, with a certain number of problems to be explained. The three great constituent races are conspicuous—the longish-headed Belgæ reinforced by the Germans, in the north; the long-headed Iberians or Mediterraneans in the south, especially in Rousillon and Corsica; the short-headed

Celts in the centre and east. But why should the broad-heads culminate in the Jura, with a modulus (in the living man, of course) of 88? If the gigantic Burgundians are to be credited with having raised the stature in these parts, as I for one believe, why should they have utterly failed to diminish the roundness of the heads?

Yet another problem. The Manche gave Collignon a head-breadth of eighty-three, larger than that of any other part of Normandy. Yet the Manche is the most blond area in France; and the blond complexion, in France at least, generally implies the long head. Here, however I think I can see light. The Manche was largely colonized by Harold Bluetooth from Denmark; the rest of Normandy, chiefly from Old Saxony and from Norway; which facts may perhaps go some way towards explaining the difficulty.

There were numerous maps, tables, and other documents setting forth the stature, as well as other physical characteristics, of the peoples of Western Europe. Some of these were quite recent in date, others less so; but probably none were very generally known. They have added considerably to our knowledge of this subject, upon which I shall enter at some length, as it is one upon which I have myself laboured and endeavoured to study and appreciate the labours of others.

There are some considerable difficulties in the way of our arriving at the absolute full grown stature of the average man. These arise from the fact that the greater portion of our material is derived from the recruiting statistics of the several countries. The object of the recruiting and examining officers has, of course, nothing to do with the solution of this problem; it is only incidentally that their material comes to be of service to us in regard to it. They very generally neglect to measure the youths who are quite manifestly below the standard, and who consequently have for them no interest. In such cases the published average is sure to be a little too high; but the truth may be ascertained, if the figures are accessible, by taking the culminating point of the numerical curve. In some countries

and at some periods, moreover, the officers have carried out other parts of the examination, and eliminated those candidates who are ineligible by reason of disease or deformity, before proceeding to determine the stature. This last method of procedure, however, though it is decidedly hurtful to the interests of anthropometry, does not so greatly concern me at present, for it is pretty well established that both tall and short men furnish a smaller proportion of valid recruits than middle-sized men, and the resulting average and mean are therefore little disturbed. Perhaps the most important flaw in such statistics remains to be mentioned. In some countries the recruits or conscripts come up for measurement in the year of the calendar in which they attain the age of twenty; this is the case in Switzerland, for example. In others, as France, they are measured after passing their twentieth birthday. Some young men have already attained their full stature at that period, but many, probably a large majority, have not quite attained it; and we have reason to think that the proportion of these two bodies of men, and the average extent by which the second set fall below the stature which they will ultimately attain, varies considerably in accordance with race, climate, mode of life, and nutrition. We have scarcely any statistics based on measurements of identical persons at different ages; but M. Robert, quoted by Baxter, found that 287 French conscripts grew on an average about nine-tenths of an inch (twenty-three millimetres) before attaining their twenty-fifth year.[1]

To begin with Belgium, a country whose ethnology is

[1] Much larger numbers have been dealt with by Quetelet, Danson (criminals), Roberts and Rawson (in the Anthropometric Report of the British Association), and above all by Baxter in his American military statistics, but in all these cases the materials at the several ages were not identical. It would almost seem as though growth were earlier completed in England, especially in the upper class, than in America, France, or Belgium. However, I do not think we shall be fa wrong if we allow a full inch or more for the average growth after the middle of the twentieth, and about $\frac{3}{4}$ of an inch, sixteen or eighteen millimetres for growth after the middle of the twenty-first year.

comparatively simple, and has been well worked out by Vanderkindere and others. The tables of Houzé show that Boudin was mistaken in supposing that the Walloons surpassed the Flemings in stature as well as in soundness and vigour. Houzé proves that the Flemings and Brabançons have a smaller cephalic index and a smaller nasal index than the Walloons, and that though exceptions from dwarfishness are slightly more frequent in the north (perhaps from causes connected with the more numerous and populous towns, and with the greater prevalence of manufacturing industry), yet the average stature of recruits is higher, Limburg, the most Germanic province, standing at the head (1,666 mm., 65·7 inches), and Hainault, probably the least Germanic, and according to Vanderkindere the one where there is the greatest prevalence of dark hair, standing lowest (1,640 mm., 64·5).

Making the allowance I have recommended, the full stature of the Limburgers will come out nearly 1,690 (5 feet 6·5 inches), and that of the Hainaulters 1,660 to 1,665 (5 feet 5·5 inches).

On the whole it is pretty clear that in Belgium stature is correlated with race, and that tall stature, light complexion, long heads, and narrow noses are generally associated, or at least, occur in the same districts.

I found a large mass of statistics as to colour and stature in Denmark, and as to colour, stature, and head form in Norway. In the former, Professor Waldemar Schmidt finds that both hair and eyes are lighter in men than in women, the eyes more especially. I have found the same rule to hold good, as regards the eyes at least, in many parts of Britain, particularly, I think, in the eastern and more Teutonic districts; and the reports of the Anthropometric Committee point in the same direction, though less decidedly. Can this be due in any measure to sexual inheritance? May the males in both countries represent blond races of invaders? I can hardly think so.

The stature of the Danes is less than I should have supposed. The average is said to vary between 1,650 and 1,670 mm., or between 65 and 66 inches. If the men measured were

recruits, as I believe, probably another inch should be added. The resulting average would be about 66·5 inches, a trifle less than my estimate for Englishmen, or than Baxter's, but a good deal lower than Roberts's. Baxter found both Danes and Swedes taller than Englishmen, but shorter than Norwegians and Scotchmen.

It is curious that the people of Thy stand at the head of the scale of stature, and those of the next district, the Vend-syssel, at the bottom. There is an ancient enmity between the Thyers and the Vendel men, and probably a difference in race.

Dr. Arbo and Sergeant Westly exhibited elaborate maps of stature, head form, and hair colour in Central and Southern Norway.

The average stature at 22 years seems to vary in different districts, or valleys, from 1,667 to 1,730 millimetres, from 65·6 to 68·1 inches. Probably we should add half-an-inch in all cases, as I apprehend that the Norwegians are slow and late in development.

One might have expected to derive much instruction from Dr. Arbo's maps of head form and colour, hints as to the lines of colonization, and possibly, though not probably, even as to the origin of the Aryans, whose primeval birthplace is now as doubtful as Homer's. I was a little disappointed. One cannot, as in Belgium or France, or most part of Germany, make out distinct relations of interdependence between form and size and colour. On the whole, the long curving sweep of southern coastland seems to be more uniformly blond, and also, strange to say, more brachycephalic than other parts.

The anthropological maps of Russia by Professor Anuchin of Moscow were not, I think, exhibited at Paris; but they and the work which they illustrate are of very great value.[1] In his commentary Anuchin analyses the different factors of the stature, geographical position, climate, geology, social and

[1] There is a good review and epitome of Anuchin's work, by M. Laloy, in the first number of the new periodical, "L'Anthropologie."

economic condition, food, diseases, density of population, &c., and comes to the conclusion that all these factors are insufficient to explain the geographical distribution of stature in Russia. He then turns to the anthropological and ethnological factors, and analyses the racial composition of the Russian people, the colonization by the Slavs of the territory of the Finnish tribes, &c., and he finds that these factors give him more satisfactory explanations.

Contrarily to the rule of Western Europe, the average stature in European Russia seems to increase on the whole as one proceeds from north to south. Great urban aggregations of population are not frequent in Russia, nor are they marked by material differences in stature, as with us. But a strong suspicion of racial differences would strike the eye of one much less learned in Russian ethnology than Anuchin. One sees at once that the old Cossack region yields tall men; so do some of the old Slavic centres, as Kief and Pskov; the Lettons are tallest, averaging about 1,673 (65·8) and the Esthonians reach 1,661 (65·4 inches) or more; the true Lithuanians, in Kovna and Vilna, are a little over the average; the Ruthenians in Volhynia about equal their brethren across the Galician border, as figured for us by Majer and Kopernicki, and similarly the Poles, whether under Russia or Austria, yield the same low average statures (about 1,620, or nearly 64 inches).

The numerous Finnish or Ugrian and Tatar tribes in the centre and east of Russia, are all, except perhaps the Mordwins, below the general average of 1,640 millimetres (about 64·5 inches), which perhaps accounts for the low position of several of the Governments of Central Russia, where the aboriginal tribes may be supposed to have crossed the blood of the Slavonic colonists. The Western Finns, whether Esthonians, Liefs or Karelians, on the other hand, are tall, one of several points of difference between these two great families.

Another point of interest is that the Russian colonists in Siberia and in the Kuban and Terek countries are taller than their brethren in old Russia, just as our own colonists in America

and Australia seem to be taller than ourselves, owing, as I think, to some process of selection, as much moral as physical.

Dr. Ridolfo Livi, who has recently been elected an honorary member of our Institute, has greatly advanced our knowledge of the physical anthropology of Italy, especially of the stature and head form. Coming after men like Nicolucci and Calori, his statistics naturally confirm theirs in their main lines; he, too, finds the broad heads and the (comparatively) high statures in the north, the long narrow heads and the low statures in the south, in Sicily, and especially in Sardinia.

He has, however, brought out some very important points which are more or less novel and pregnant. Thus he has proved that the whole region of the Riviera, generally supposed to be peculiarly Ligurian, while it has the higher stature of the north, has the long or medium head of the south, and that these characters are both exaggerated in Massa, Carrara, and Lucca.

Evidently we must reconsider the Ligurian question.

The curiously blond district east of Gaeta, which I may perhaps claim to have been, in company with Hodgkin, the discoverer, or at least the demonstrator, is shown by Livi to be mesocephalic, and to have a lower index than any other district in that part of Italy.

Another laborious and important enquiry is that of Dr. Von Erckert into the head forms of the peoples of the Caucasus, a mountain region which since the time of Mithridates has been known to contain a miscellany of races and languages. Von Erckert has not yet published more than that portion of his observations which relates to the Lesghians. These are evidently a mixed race. A dolichocephal, however, seems to be quite a rarity among them: they are generally brachycephalic or hyperbrachy; but, what one would hardly have expected, their heads are low as well as broad. Jewish features are common, in some places prevalent.

Dr. Emil Schmidt, of Leipzig, has published in the "Archiv für Anthropologie" a measured catalogue of his fine collection of skulls, considerably over 1,000 in number. About half of these

are Egyptian, ancient and modern. The collection is also extremely rich in Etruscan skulls, containing no less than 135, almost all from Tarquinii; 14 of these are dolicho, 70 meso, 38 brachy and hyperbrachycephalic. There are 19 Chinese, with an index of 78·9: this I mention because one frequently sees the Chinese erroneously described as brachycephalic.

Some may be disposed to say "Cui bono?" with regard to these extensive and minute enquiries into physical anthropology, these masses of statistical tables and these elaborate maps. Well, I admit that they are of no great benefit to the observers and compilers of them, except in so far as all good, thorough, honest work done is a benefit to the doer of it: I acknowledge the far greater and higher interest of the psychological side of our science, with its bearings on sociology, mythology, and so forth. The higher the interest the greater the attraction, and there is no fear, therefore, that ethnography will ever lack cultivators.

But if the natural history of the lower animals is worthy of cultivation, surely so is that of man, not merely as an agreeable and healthy exercise of natural curiosity, but because of its direct and indirect bearings upon the improvement of the species, and on other practical questions.

And if our knowledge is to be useful, it must be exact, or at least founded on exact data. Now and then one hears of a revolt on this point within our own circle. Thus Dr. Fauvelle, the other day, in the Paris Society, attacked the anthropometric school. "What will come," he said, "of the vast enquiry into the colour of eyes and hair undertaken by Dr. Topinard? You visit a place where there are two well-defined types. If you take your compasses and metric measures, take all possible mensurations of 2,000 or 3,000 individuals, what will you do more than confirm a distinction which strikes everybody at first sight?"

Now this is a great mistake. Nothing can be more untrustworthy than these hasty general impressions; and the proof is, that very frequently two observers of the Fauvelle type run away with opposite impressions of the same facts, and communicate them to other people; who, not having opportunities of

verifying them, proceed to base important arguments upon one or other of these contradictory premises.

Two small books on a great subject have lately appeared: "The Origin of the Aryans," by Isaac Taylor, and "The Cradle of the Aryans," by Gerald Rendall. They are, in my judgment, both excellent works, and well deserve study: both contain epitomes of the best and latest continental investigations of the subject, with some well-reasoned original matter They result in different conclusions. Dr. Taylor thinks that the typical Aryans are the Celto-Slavic peoples, and that their affinities are Ugric: Mr. Rendall thinks the Aryan centre, where the earliest Aryan tongue was developed, was in Scandinavia or about the Baltic, and that the long-headed blond race was its parent or earliest proprietor. The point, however, to which I would now direct your attention, is, that to both of these writers the physical characteristics of the Slavs are a matter of moment, and that one of them speaks of the Slavs as tall and fair, the other as short and dark. And both of them could cite authorities enough. Of course the question is here involved which of the Slavonic peoples best represents the original Slav type? But in any case exact and numerous anthropometric observations would be needful to settle the difference.

The first anthropologist of note, so far as I am aware, who took up the notion of the European origin of the Aryans, was our own countryman Robert Latham. His known love of paradox probably prevented him from gaining proselytes to his theory; but it grew and flourished among the Germans; and of late years, especially since Professor Sayce has adhered to it, has found much support in this country also. The question has unfortunately got mixed up with political and racial antipathies—the Germans almost deifying the tall and fair warrior-race of the north, as though they had all been like Frithiof or Gustavus Adolphus; the French painting them as large-limbed and small-brained savages, the legitimate offspring of Neanderthal.

I am not going to be so rash as to volunteer an opinion on the great Aryan question: moreover there would be insufficient

scope in a short address to support such an opinion. But I propose, before concluding, to suggest two or three considerations bearing on the topic. Much has been made, by some of the partizans of the European origin theory, of the great geographical extension of the Aryan area in Europe, as compared with that in Asia. The argument is a weak one; at any rate it may be used, in the remote future, to prove that Portugal was colonized from Brazil. But its basis, besides, is unsound. The Aryan area in Asia was about as large several centuries before Christ as it is now, extending from the Jaxartes to the Persian Gulf, from the Caspian to the Bay of Bengal, and even further, but in Europe it was not so, for what is now Russia was then, and long afterwards, mainly occupied by the Ugrians, and the greater part of Spain was no more Aryan in speech than in race.

The resemblance between Ujfalvy's Galtchas and the Auvergnat type is not confined to the skull, but extends to the features. On the other hand, though some high caste Hindus have skulls and features which may be called European, I have never seen among them a distinct reproduction of the Grave-row type. Professor Leitner's Siah-Posh Kafir, Jehanghir, was a short, dark, brachycephalic man. Perhaps the Grave-row, or north European type, may still exist in Kashmir, where the climate should be favourable to it, but I have never seen any Kashmirians. The inference seems to be that the type which is clearly common to Europe and Asia is more likely to be the original Aryan one, and that as the Auvergnats were not apparently the oldest race in France, whereas we have no reason to think that anybody preceded the Galtchas in their inhospitable valleys and mountains, it is easiest to suppose that the Upper Oxus was the cradle of the race.

Once more, many philologists of mark regard the Lithuanian language as the most primitive in form of the whole Aryan family. Clearly then, it is very important that we should have some accurate knowledge of their physical character. But so far as I am aware, we possess no authoritative and exact information on the subject. The Lettons, it is true, who speak

Lithuanian dialects, have been carefully examined and described by Wöber, who finds them very tall, with eyes and hair very generally light, and mesocephalic. The Lettons, however, are supposed to be Lithuanians with a Finnish cross, Lithuanians who have at some time vanquished, overrun, and incorporated masses of Esthonians. The true Lithuanians, to the south-east of the Lettons, are not, as one can make out from Anuchin's statistics, very tall men: they are said vaguely to be blond, but of their head form I know nothing.

Here, then, is a fine opportunity, well within reach, for a partizan of the European-origin theory. Let him go to Kovno or Vilna and bring us back, thoroughly established, the true Lithuanian type!

ANTHROPOLOGICAL MISCELLANEA

A Vocabulary of Ulia.

With Introduction by C. M. Pleyte, of Amsterdan..

The Royal Zoological Society ("Natura Artis Magistra") at Amsterdam, decided some years ago to add an ethnographical section to its Museums, which till then had contained only zoological collections. The director of the Society, Dr. G. F. Westerman—who, notwithstanding advancing years, is still working with unabated ardour—thought, with much reason, that Man, the most highly developed type of animal life, ought to be represented in a place where the endeavour was to collect together specimens of the fauna of every part of the world; and that the best manner to effect this was, in the present case, to collect products of human industry indicative of its different stages. Former contrivances of men, as well as objects actually in use by existing tribes and nations, were therefore brought together, and after a short time formed such a considerable collection, that it was found necessary to appropriate a special building to its exhibition. This was effected in 1858. The objects exhibited were arranged so as to excite attention, and the collection attracted an ever-increasing flow of interested visitors.

At that time, however, ethnography had not become a science. Museums were formed with aims very different from what they have now, attention being especially given to what might strike the fancy or please the eye, and the exhibitions were therefore so arranged as to give prominence to those objects which, by their variety, their forms or their colour, were best calculated to satisfy the curiosity of visitors. Very little notice was taken of the origin and anthropological significance of the curiosities exposed, and so it often happened that objects of great scientific interest, but of no striking appearance, were not considered worthy of exhibition and were put away as lumber, or even altogether lost. It is in fact fortunate that such specimens have not been all thrown away, and that certain museums kept them in some remote corner, however worthless they were deemed. Objects of real value have in this manner been preserved. The museum of "Artis"—as the Royal Zoological Society of Amsterdam is popularly called—followed the practice of not destroying those objects which were not promoted to the honour of public exhibition, and this prevented the loss of

an interesting collection from the islands of the Pacific, which in the early years of the museum had come into its possession. The list of words which I here publish forms the chief part of a manuscript belonging to this collection.

I possess no means of ascertaining who the author was, as will be understood from the following particulars.

Though "Artis," being primarily a zoological garden, could not expend great sums on such a subject as Ethnography, yet it did not neglect the public sales, where sea-captains, more frequently at the time when steam-navigation had not assumed such great proportions as is now the case, were wont to put up for auction curiosities brought back by them from the distant countries they had visited, and where such things could be bought for little money. At that time the ethnographical museum had no regular director, but was looked after, disinterestedly, by a painter, who caused all the objects which were unknown to him to be carefully put aside, so that in 1887, when the museum was scientifically reorganized in a new building, and I was put at its head, I found all those things duly preserved, of which some are very valuable. Among them was a lot containing a quantity of weapons from New Zealand, Australia, the Carolines and other islands, which had been bought at a sale of which I cannot ascertain the date. In this lot I found, as yet unopened, but without the least indication of the place from which it had come, a packet, still enclosed in matting and tied up with a rope. Inspection of the contents showed them to consist of a number of clubs of the wood of the areca palm and of a note-book, written in English, namely, the manuscript aforesaid.

I supposed the clubs to have come from the Carolines, from their resemblance to some, brought from the Isle of Ruck, which I remembered having seen in the Ethnographical Museum of Berlin, and to some I had remarked in the British Museum. However, the cares consequent on the reorganization of the museum, which was very soon to be opened to the public, left me no leisure for further investigation, and I have been only recently able to resume the subject.

It appeared now that the clubs must most probably have come from the island of Ulia, because the note-book which accompanied them contained a vocabulary, written partly in pencil and partly in ink, of the language of that island; and the annotations added to it showed that it had been written by some person who had long resided there, and even undertaken excursions to the neighbouring islands. It might have been a missionary.

I read, for instance, on p. 9:—"From Ulia to Mariailes (Marianna Islands), three canoes—wind east, twenty people. Sáe-put Island (Mariannas), a very quiet people requiring kind treatment." On the last page is a list of names, to which are added the qualifications of the persons they designate, these designations, however, having become illegible for the most part. I can only see that Palúka was a chief, and Jaúput his wife. I find further on that page the names of Jaguluerak, and of his wife Nahũilala, of Maromiltu,

Jaralim, Karakalu, Fralimong, Seramioto, Kalnelipua, Jaralipu, and Rahalifelu. Every detail shows that the list of words had been made with great care. This is the reason why I resolved to publish the manuscript, which had not, as far as I could ascertain, been published; the more so, because the knowledge possessed of the language of that island amounts to very little indeed. As the author was evidently an Englishman, I thought that no better means of publication could be chosen than this English review, that of the "Journal of the Anthropological Institute."

ALPHABET OF ULIA ACCORDING TO THE ITALIAN VALUE OF THESE LETTERS.

1. a	7. h	13. o	19. ts
2. b	8. i	14. p	20. u
3. d	9. k	15. r	21. v
4. e	10. l	16. rh	22. w
5. f	11. m	17. s	23. wh
6. g	12. n	18. t	

NUMERALS.

	Ulia.	Ulithi.
One	*īát.*	*johs.*
Two	*rhū.*	*ruo.*
Three	*iáli.*	*jall.*
Four	*fāng.*	*vang.*
Five	*lim.*	*limm.*
Six	*whāl.*	*oll.*
Seven	*fīs.*	*viss.*
Eight	*uáli.*	*vall.*
Nine	*tizu.*	*diu-ser.*
Ten	*sek.*	*sek.*
Eleven	*ségĕmē.*	—
Thirteen	*ségĕmē sélu.*	—
Twenty	*rhu ek.*	*riak.*
Thirty	*sel īk.*	*selik.*
Forty	*fa īk.*	*fak.*
Fifty	*lem īk.*	*limag.*
Sixty	*whāl īk.*	*ollag.*
Seventy	*fis īk.*	*visak.*
Eighty	*ŭál īk.*	*wallak.*
Ninety	*tiu īk.*	*thouak.*
Hundred	*séhūku.*	*seboukith.*

ULIA.

A.		B.	
Abdomen	*sa rhám.*	Back	*ta rhóro.*
All	*mille.*	Bad	*ngau.*
Also	*ōú.*	Bag (native)	*tĕzaú.*
Ancle	*koru pili peré.*	Bambov	*puam.*
And	*mé.*	Beard	*élis.*
Anger	*arīte.*	Before	*imó.*
Arm	*pāūm.*	Behind	*imūri.*
Ashes	*máror.*	Bird	*mālūk.*

Bird (cock) .. *mālūk u mál.*
Bird (hen) .. *mālūk u terhau wuta.*
Bird (small do. of Ulia) .. .. *liga pilāe.*
Black .. .. *orūl.*
Blood .. .. *tsĕrā.*
Blue .. .. *karō oráu?*
Body .. .. *kau tongal.*
Bone .. .. *sĕrū.*
Bottom .. .. *fal.*
Bow (end) .. *màta.*
Box (native) .. *a punga punga.*
Brain .. .. *pēgeli súme.*
Branches .. .. *rāli.*
Break, to .. .. *e púnū.*
Breast (milk) .. *tĕ ūt.*
Brothers .. .. *pūia pú is.*
Brother (eldest) .. *tokoræi.*
Brothers (younger) *e kitékit.*
Buttock .. .. *rūpeli peré.*

C.

Calf .. .. *sará li pu.*
Calm .. .. *luá.*
Cane(drinkingtube) *mōnye ūru? úlu.*
Cat .. .. *atu.*
Cheek .. .. (*tipi*) *tap.*
Chest .. .. *nivéi.*
Chief .. .. *palukō.*
Chief (small) .. *paluili.*
Chief of chiefs .. *tamouil.*
Child .. .. *sĕāri.*
Chin .. .. *čāt.*
Cigar .. .. *ūli marĕs.*
Cigar case .. *engarĕs.*
Claws .. .. *pepē liāng.*
Claws .. .. *pepē liāng.*
Clean .. .. *fĕu.*
Cloth .. .. *mangako.*
Cocoanut .. .. *tĕrāu.*
Cocoanut tree .. *lū.*
Cold .. .. *vaur.*
Come back, to .. *te vál.*
Counting .. .. *wháta wháta.*
Cry .. .. *tāng.*

D.

Daughter .. .. *sĕari vau wuta.*
Day .. .. *ialo.*
Daybreak .. .. *mánine.*
Day, next .. .. *púaungi.*
Day, to .. .. *ia púaung.*
Dead .. .. *tōrōráp? mēi.*
Deal of watch .. *ivu fárak.*
Dirty .. .. *puĕs.*
Dog .. .. *kalako.*
Dolphin .. .. *jepáro.*
Don't know .. *ito goula.*
Door .. .. *réring.*
Down .. .. *ólaukh.*
Draw, to .. .. *shévingi.*
Drink, to .. .. *ūlú.*
Dry, to .. .. *mai.*
Dry, to .. .. *puli.*

E.

Ear .. .. *táling.*
Earth (world) .. *péné.*
Eat, to .. .. *nūlŭ.*
Elbow .. .. *a pini pini pāús.*
End .. .. *to wūl.*
Evening .. .. *ia oupúng.*
Eye .. .. *māt.*
Eyebrow .. .. *fāt.*
Eyelash .. .. *matára li matái.*
Eyelid .. .. *pali wú bene matái.*

F.

Face .. .. *matái.*
Fast .. .. *mara.*
Fat .. .. *putéi.*
Father .. .. *te mal, timi sĕiri.*
Fighting? .. .. *au arák.*
Finger .. .. *atii pōūm.*
Finger nail .. *ku.*
Fire .. .. *iāf.*
Fish .. .. *ihk.*
Fishing line .. *e lauk aul.*
Fishing line (small) *au lauk aul.*
Flesh .. .. *kīl.*
Flint .. .. *pārá.*
Food .. .. *meng ō-mō.*
Foot .. .. *peré, para para li.*
For .. .. *li.*
Forehead .. .. *māng.*
Fresh water .. *sálŭ.*

G.

Go, to .. .. *lākho.*
Good .. .. *éno (ina).*
Grass .. .. *e aróma.*
Great .. .. *au i lep.*
Greater .. .. *ka metak.*
Greatest .. .. *ka mau ius.*
Green .. .. *eliúl.*
Gum from Ulia for stopping leaks .. *pālis.*

H.

Hair .. .. *sim.*
Half .. .. *itáp.*
Half moon .. *itáp maram.*
Hand .. .. *para para li póūm pari páūs.*
Hard (severe) .. *ma māon.*
Hat .. .. *pùrang.*
Head (side of) .. *pegeli súme.*
Head (top of) .. *ta kah o súme.*
Heart .. .. *metadu póm rūis.*
Heavy .. .. *e serāu.*
High .. .. *sĕrú.*
His .. .. *millenal.*
His or hers .. *eál.*
Horizon .. .. *te linge li parĕs.*
Hot .. .. *puāiĕs.*
House .. .. *páro.*
House roof .. *páro lūa.*

I.

Iattro .. .. *māhk.*
I know .. .. *i goulá.*
Inside .. .. *ilāliló.*
Iron .. .. *pārāng.*
It .. .. .. *ia.*

J.

Joy .. .. *ka vàtau wárĕs.*

K.

Knee .. .. *pūwúm.*

L.

Language .. .. *ira.*
Large (place) .. *whai, au itep.*
Laughter .. .. *fe fĕis.*
Lean .. .. *maró.*
Leaves .. .. *uni.*
Leg .. .. *perém.*
Light .. .. *epálĕ.*
Lips .. .. *ta oái.*
Little .. .. *kit e kit.*
Low (not high) .. *lau kite kit.*
Low .. .. *talu.*
Lungs .. .. *ngá iang ás.*

M.

Make, to—rope .. *pili pili tali.*
Man .. .. *mal.*
Many .. .. *to elip.*
Married .. .. *iau tajili.*
Mats .. .. *kaóis.*
Me .. .. *mei.*
Milk .. .. *tĕūt.*
Mine .. .. *eai.*
Moon .. .. *marám.*
Month .. .. *marám.*
Morning .. .. *ia tai wāta, nit-ow.*
Morrow, to .. *se langeli.*
Mother .. .. *levĕūn iari.*
Mouth .. .. *eāo.*
Much .. .. *to ilep.*

N.

Nail .. .. *ku.*
Naked .. .. *manāko.*
Name .. .. *item.*
Names .. .. *itemi.*
Neck .. .. *úei.*
No .. .. .. *tera ta-tai, tairo ta iro, tai ori.*
Noise (like a watch) *e metangatang.*
Nose .. .. *pōt.*
Nostril .. .. *etam má li wóti.*

O.

Of .. .. .. *li.*
Outrigger .. *tām.*
Outrigger stays .. *kia.*

P.

Paddle .. .. *fatúl.*
Pain .. . *e metuk.*
Pain, much .. *metaketuk.*
Penis .. .. *tai.*
People (nation) .. *aramati toilep.*
Perspiration .. *muie mae.*
Pig .. .. *sēlo.*
Pilot .. .. *pīlū.*
Pipe (smoking) .. *se ganilep.*
Plank .. .. *pāp.*
Plate, wood .. *páli.*
Pole .. .. *tongal.*
Pull, to .. .. *táu táu.*
Pump, to .. .. *rhĕmát.*
Push, to .. .. *tingaló.*

Q.

Quadruped .. *lépal.*

R.

Rain .. .. *korō.*
Rat of Ulia? .. *waki.*
Red .. .. *manako, sĕrak.*
Rice .. .. *pĕrās.*
Rising (direction) *koé tu.*
Roll, to .. .. *marōro.*
Root .. .. *whāka rál.*
Rope .. .. *tali.*
Round (watch) .. *itu tau kalinu.*
Rudder .. .. *fateuru ili uru.*

S.

Sail .. .. *ūl.*
Salt water.. .. *tātū.*
Setting .. .. *ili to.*
Shark .. .. *páko.*
Ship .. .. *whā.*
Shoulders.. .. *á va rác.*
Side of body .. *pĕgeli.*
Side .. .. *katá ratóm.*
Sing, to .. .. *arúru.*
Sisters .. .. *puia púis.*
Sister (younger) .. *pui il.*
Sky .. .. *liāng.*
Sleep, to .. .. *mai ūru, mai se uru.*
Slow .. .. *tai mara.*
Smoke .. .. *purāko.*
Smoke, to—tobacco *ulu tamáca.*
Sneeze, to.. .. *ia móii.*
Soft .. .. *injáo.*
Son .. .. *tera mal.*
Sorrow .. .. *āwatinga.*
Speak? .. .. *kapata.*
Speaking? .. *kapatána.*
Spit, to .. .. *kūt.*
Spoon (native) .. *iti iti.*
Star .. .. *fūis.*
Steel .. .. *iāf.*
Stern .. .. *méte lūe.*
Strike, to—a blow *tu.*
Strong .. .. *móaorts.*
Sun .. .. *ialo.*
Swell .. .. *lau, au ilep.*
Swim, to?.. .. *ihka.*

T.

Tail .. .. *aréri.*
Teeth .. .. *ngi.*
That .. .. *ilal, iteli.*
This .. .. *é čl.*
Throat .. .. *o róng-ái.*
Thumb .. .. *ativi pōúm.*
Thigh .. .. *ká voi.*
Tobacco .. .. *tamaca.*
Toe .. .. *utiri peré.*
Tongue .. .. *léo.*
Top .. .. *ual.*
Top of tree .. *si awul ira.*
Tree .. .. *ira.*
Turn it over .. *whaketi.*
Twine .. .. *uis.*

U.

Up .. .. *sū i ták.*

V.

Vagina .. .. *tingi.*
Vein .. .. *uákh.*
Very thick .. *male-usu.*
Very thin .. *male-vilife.*

W.

Washing .. .. *tu itu.*
Wet .. .. *te rhok.*
What .. .. *méta.*
Where .. .. *kéfea.*
Where his name.. *evāe itúle.*
Where your name *evae itum.*
Whiskers .. .. *élis.*
White .. .. *mangākó, warĕs.*
Wind .. .. *iangi.*
Wind, E. .. .. *iangi koétu.*
Wind, N.E. .. *iangi evang.*
Wind, S.W. .. *iangi leto.*
Wind, W. .. *iangi uru.*
Woman .. .. *terhau wuta.*
Wood .. .. *kau.*
Wood (tender) .. *kilipu.*
Wood (spar) .. *éra.*
Worn out.. .. *telenjak.*
Wrist .. .. *korupili pāús.*

Y.

Yam .. .. *puluke.*
Yellow .. .. *táro rāng.*
Yes .. .. *ila, eoro.*
Yesterday.. .. *láui.*

My leg	*perē.*
Your leg	*perém.*
My leg	*mille perē.*
Your leg	*millemum perém.*
His or her leg ..	*millenal perél.*
My hat	*mille párungi.*
Your or our hat ..	*millemu párungūru.*
Him or her ..	*kálene.*
Yours	*eām.*
Mine	*eāi.*
His or hers or theirs	*eáe.*
Drink for me ..	*ūlime.*
Drink for her ..	*ūlimale.*
To you	*ili mūm.*
To me	*ili méi.*
Carry to her ..	*kaitauk e réli.*
Carry to him ..	*kaitauk erēi.*
Carry to them ..	*kaitauk erémem.*
Bring to me ..	*kai tauk erē.*
Bring to him ..	*kai tauk erēl.*
Bring to you ..	*kai tauk rēnu.*
Yours is good ..	*kel iē mamaŭr.*
Mine is bad ..	*kangie ngau.*
Bad his	*ngau ēi.*
Its dirty	*pu ia pŭěs.*
Its clean	*pu ia fĕu.*
Not dead	*ta i te mĕis.*
I eat	*kang mō.*
You drink ..	*kéle ūelu.*

Note *on a* Vocabulary *of* Ulia,

With Vocabularies of Kusaie and Mortlock, Caroline Islands.

By Sidney H. Ray.

The only specimen of the language of Ulia known until the publication by Herr Pleyte of the MS. found at Amsterdam (p. 494) was a short vocabulary given by Dr. R. G. Latham, in 1862, in his "Elements of Comparative Philology," the source of which was not stated. Comparing this with Herr Pleyte's Vocabulary, the equivalents of thirty-three English words are found, and of these twenty (*i.e.*, sixty per cent.) are identical, or nearly so. Of the remaining thirteen words which differ in the two vocabularies, Latham gives seven and Pleyte six, which are more or less like those of the neighbouring languages. The dialect of Ulia appears to vary somewhat from that of the other Caroline Islands, a very large number of words being almost identical with those in common use in the south and west of Oceania, in Melanesia and Polynesia. It is closely allied to the dialect of Mortlock, as will be seen from the vocabulary appended.

It may be noted that the Ulia substitutes *t* and *l* for the Mortlock *s* and *n*, *tamoul* for *samol*, chief; *tang* for *son*, cry; *mat* for *mas*, eye; *-el*, the suffixed possessive pronoun of the third person for *-en*, &c. The Mortlock *e* and *j* are less frequently represented by *a* and *t*.

The words *kil*, flesh; *ialo*, day; *oai*, lips; *mal*, man; *tatu*, salt water, in Herr Pleyte's Vocabulary are apparently the *kili*, skin; *ial*, sun; *au*, mouth; *muan*, male; *set*, sea, of the Mortlock.

A vocabulary of the Kusaie or Strong's Island language is added to exemplify the difference existing in this part of the Oceanic region.

It is apparently the same as a vocabulary called Ualan by Lesson. (Notice sur l'Ile Oualan, 1825.)

Both these vocabularies are derived from the translations of the American missionaries.

§ 1. ORTHOGRAPHY.

a, *e*, *i*, *o*, *u* as in Italian, *ă* as *a* in salt, *ŏ* as *u* in publican, *ai* as *i* in fine, *au* as *ou* in flour.

Consonants as in English. n as *ng* in sing, r as strong trill. s as *sh* in ship.

§ 2. NUMERALS.

	Mortlock.	Kusaie.
One	*a.*	*sie.*
Two	*ruo.*	*luo.*
Three	*elu.*	*tolu.*
Four	*fa.*	*ao.*
Five	*limo.*	*limikos.*
Six	*uono.*	*onkos.*
Seven	*fus.*	*itkos.*
Eight	*ualo.*	*oalkos.*
Nine	*tuo.*	*eu.*
Ten	*eñaul, seek.*	*sie-ñul.*
Eleven	*eñaul mi e.*	*sie-ñul-sie.*
Twelve	*eñăul mi ruo.*	*sie-ñul-luo.*
Twenty	—	—
Thirty	*elik.*	*tol-ñul.*
Forty	*fa.*	*a-ñaul.*
Fifty	*lime.*	*lum-ñaul.*
Sixty	*uone.*	*on-ñul.*
Seventy	*fik.*	*it-ñul.*
Hundred	*apuku.*	*sie-fok.*

In Mortlock *man* is added to the numeral when used with the name of a living creature, and *u* when ordinary objects are numbered.

Abdomen	*letip.*	*iñsie.*
All	*monison.*	*kemwu.*
And	*o.*	*ă.*
Arm	*pa.*	*pau, po.*
Ashes	*faas.*	*apat.*
Bad	*iñau.*	*koluk.*
Before	*moa.*	*mutu.*
Behind	*muri.*	*tuku.*
Bird	*mani.*	*mwon.*
Black	*ŭŏl.*	*sralsral.*
Blood	*ŭa.*	*sa.*
Body	*aion.*	*monu.*
Bone	*ŭin.*	—
Bow	*mŏt.*	*sri.*
Branch	*kaň.*	*le ŭak.*
Brother	*pui.*	*li.*
Cheek	*ausep.*	*olu.*
Chief	*samol.*	*togusa, leum.*
Child	*na.*	*tulig.*
Cloth	*mañaku.*	*nuknuk.*
Cold	*afou.*	*musis.*
Cry	*sŏň.*	*tuň.*
Day	*ran.*	*len.*

	Mortlock.	Kusaie.
Day, to	*malemal.*	*misiñi.*
Dead	*me la.*	*miñi.*
Dog	*kŏmuia.*	*ñaliñul.*
Door	*asaman.*	*mutun pot.*
Drink	*unimi.*	*nim.*
Ear	*jalin.*	*sra.*
Earth, world	*fanufan.*	*fwala.*
Eat, to	*mŏña, añiañi.*	*mono.*
Egg	*sŏkul.*	*atro.*
Evening	*lesautik.*	*yikue.*
Eye	*le mas.*	*mut.*
Face	*mas.*	*mutu.*
Father..	*jam.*	*papa tumu.*
Finger..	*aitu.*	*kufin pou.*
Fire	*ief.*	*e.*
Fish	*ik.*	*ik.*
Flesh	*aion.*	*ikwe.*
Fly	*lăñ.*	—
Foot	*pĭr.*	*niu.*
Fowl	*malek.*	*mwonyen.*
Fruit	*ua.*	*fwako.*
Go, to	*fai.*	*ŏom.*
Good	*allim.*	*mwo.*
Great	*lapalap.*	*lulap.*
Hair	*met.*	*aun.*
Hand	*pa.*	*po.*
Head	*maker.*	*ŏiufu.*
Heart	*letip.*	*insie.*
Hot	*puĕrikar.*	—
House	*im.*	*lom.*
Leaf	*ŭan.*	*sra.*
Leg	*pĭr.*	*nie.*
Light (not dark) ..	*sarem.*	*kalem.*
Little	*kisakis.*	*sisik.*
Live, to	*manau.*	*mol.*
Man, male	*aramas, muan.*	*mogul.*
Moon	*maram.*	*malem.*
Month..	*maram.*	*malem.*
Morrow, to	*masatan.*	*lutu.*
Mother	*asak.*	*nine, kiu.*
Mouth..	*au.*	*oalu.*
Name	*it.*	*ĕ.*
New	*sefa.*	*săsu.*
Night	*lepuñ.*	*foñ.*
No	*ap.*	*mo, tiu.*
Old	*mes.*	*matu.*
Rain	*ut.*	*auf.*
Red	*par.*	*sisa.*
Road	*al.*	*inek.*
Root	*ŭapin ura.*	*okun ŭak.*
Salt water, sea ..	*set.*	*mwea.*
Ship	—	*oaku.*
Sister	*mŏñai.*	*lou.*
Skin	*kili.*	—
Sky	*lañ.*	*kosao.*
Sleep	*mair.*	*motul.*
Smoke..	*at an ief.*	*fofosiuk.*
Son	*na.*	*neti.*

	Mortlock.	Kusaie.
Speak	*pasa.*	*fwak.*
Spittle..	*atif.*	*ani.*
Star	*fukan.*	*itu.*
Stone	*fau.*	*eot.*
Sun	*iăl.*	*fwatu.*
Sweet	*tinna.*	—
Tongue	*mŏ̈ña.*	*lo.*
Tooth	*ñi.*	*mwis.*
Tree	*ura.*	*s̈ak.*
Water	*ẗan.*	*kof.*
White	*pŏ̈rapŏ̈r.*	*fwosfwos.*
Wind	*eñ, asapual.*	*eñ.*
Woman	*ẗăpot.*	*mutan.*
Yes	*euar.*	*ack, ao.*

PRONOUNS.

Mortlock.

Singular.	Plural.
1. *nan.*	1. ja.
2. en.	2. ami.
3. a, i.	3. ir.
asakai.. .. *my mother.*	jam at .. .. *our father.*
asakom .. *thy mother.*	jam ami .. .. *your father.*
asakan .. *his mother.*	pir ar .. .. *their feet.*
ia? *who?*: meta? *what?*	
ei, *this*: ue, *that.*	

Kusaie.

Singular.	Plural.
1. *na.*	1. { kem (excl.) / kut (incl.)
2. kom.	2. komwos.
3. el.	3. elos.
lik .. .. *my brother.*	mutas.. .. *our eyes.*
pom .. .. *thy hand.*	insiumwos .. *your hearts.*
paul .. .. *his hand.*	mutalos .. *their eyes.*
su, *who?* mea? *what?*	
ini, *this*: ino, *that?*	

Childbirth Customs of the Loyalty Islands, as related by a Mangaian Female Teacher.

Communicated by Rev. W. Wyatt Gill, LL.D.

Niki Vaine, with her husband, laboured for awhile on the island of Lifu in the Loyalty Group. Upon their expulsion by the French, she was invited by Mrs. Gill to address a gathering of married women on Mangaia, her native soil. The following is from notes taken at the time by my wife.

When a woman knows that her time is near, she selects a place in the bush for the event to come off, carefully weeds it, and pre-

pares a hollow for her greater convenience. The spot selected is always near the sea, for the purpose of ablution. As soon as labour commences she goes to this place; but it is soon made known from one to another for several miles round that a child will be born in such a spot. Forthwith almost everybody hastens there—men, women, and children; but *not* the husband of the poor woman. The spectators squat down upon the ground round the woman, who lies upon her back without even a leaf to cover her. For the most part they are pretty quiet. Some of the women endeavour to assist the labour by putting the legs widely apart, and inserting two sticks to facilitate the passage of the head. The woman is encouraged as the throes increase by the voices of the spectators: "Now for it." "That's it." "There is the head," &c., &c.

When the child is born, a woman divides the umbilical cord with a shell, picked up for the purpose on the beach. The infant is then placed on a banana leaf, not washed or even wiped; nor is anything wrapped round it. A woman now chews finely a piece of coconut and thrusts it down the little throat with her finger, far enough to occasion retching. This is done twice, the reason assigned for this custom being, that "it enlarges the throat so as to facilitate swallowing food." Meanwhile the mother has gone to bathe in the sea, carefully taking with her the placenta, &c., in a coconut-leaf basket. After thoroughly bathing and drinking some sea-water as medicine, she does not return to her own home, *i.e.*, to her husband's dwelling, but lives on the beach in a little temporary hut, thatched with coconut leaflets. There mother and babe remain until the child is big enough to crawl. She spends her time in sleeping by the log-fire inside the hut, and bathing in the sea. It is no uncommon thing for the infant to be scorched, as it is placed very near the fire to keep its little nude body warm.

The husband never comes to see his wife during the months spent by her on the beach; but occasionally he sends her a basket of food. Her mother, or some other female relative, looks after her wants.

On an appointed day she takes up her child and returns home to her husband. When she gets near the dwelling, her husband calls out to her "to come in and bring the child." Should he *not* say, "Come, come," it would be plain that he did not want her any more.

One morning I was sitting in my house, when the wife of King Kauma came to me and said, "I wish you to consent to my going to the bush to give birth to my child; still, if you do not consent, I *shall* go." "No, no," I said, "I will never consent to such a thing, for both you and the king profess to have given up heathenism. Yonder is a small house (pointing to one we had just built), where you can be confined quietly, and not in the barbarous manner of the heathen." "No," she replied; "I will go and bring forth my child in the bush, for the child of a king is very *tapu;* it would not be a fitting thing to let it be born in a house."

After some further conversation, I succeeded in persuading her to do as I wished, I promising to make it all right with the king. So she was confined of a boy in our house, only myself and two or three other women being present. I washed the infant and wrapped it up in a piece of print. I then put a *pareu* (= petticoat) on the mother, and said, "Now we will go to the king." At first she was frightened and exclaimed, "You do not know how much a woman just confined is loathed by her husband. I am afraid. The king's house is too *tapu* (= sacred) for me at present." At length I succeeded in overcoming her scruples, and we proceeded to the king's house. I went first, carrying the babe. When near the house I found the door shut; so I called out, "O King! O King! I am here. Open the door." But the king took no notice until I called out the third time, when he opened the door. I then said to him, "O King, I have brought you your babe. Here it is, and your wife too. Now pray do not refuse to admit them into your house. You profess to be a Christian. Now show that you are sincere, and let all your people see that you are in earnest by leaving off your old ways with regard to your wife and babe. Let them in; and do you feed your wife while she continues weak, and do not despise her, O King." Kauma said, "So I will," and admitted them.

Dr. Wyatt Gill adds: There can be no question as to the accuracy of this interesting sketch of native life in the Loyalty Islands a quarter of a century ago. The translation is very close to the original. I think the reason given at the end of the paper why women go to the bush to be confined, is the correct one, *i.e.*, that the husband "despises" and "loathes" her as being unclean. This reminds one of the Levitical law on the subject. Nothing like this was known in the Hervey Group. If a child were so born, it would be looked upon as illegitimate.

W. W. G.

Sydney,
July 4th, 1889.

Notes *on certain* Australian Marriage-Systems

By A. J. Vogan.

The following is an extract from a letter of A. J. Vogan, Esq., dated Port Pirie, South Australia, October 27th, 1889, addressed to J. Jenner Weir, Esq., F.L.S., containing notes lately made by the writer in Central Australia:—

I have just returned from a long ride from Bourke, on the Darling (lat. 30° S.), to the Upper Mulligan (lat. 23° S.; long. 138° W.), and back southwards to Hergott, on the Transcontinental Railway line of South Australia (lat. 30° S.; long. 138° W.);

a distance, with branch journeys, of about 1,600 miles. Amongst the most interesting of my notes gathered on the trip are those referring to the marriage laws and methods of tracing descent of the aborigines of Central Australia. As each district has a different language, and uses different terms to denote the same divisions or classes into which all the tribes are divided, I will, in speaking of this subject, only employ the terms of the Dieri language employed in the Kopperamana district (lat. 28° S.; long. 138° W.), where I stayed lately, and had the best opportunity of putting my disjointed notes together under the guidance of a good native linguist in the person of a German Missionary named Flierl. To go *in medias res* I may say that everything tends to prove that the marriage customs, roughly speaking, of New Guinea and North Australia are the same as those of South Australia. You may, speaking generally, say that this one remarkable difference exists (I don't think anyone else has noticed or written about it), that in the fertile regions of the eastern coast of Queensland, amongst the food-producing regions of the moist coast range, descent is traced through the *father's* side of the family, and wives are not (at any rate in some tribes) held in common amongst brothers; whilst in the more *sterile* regions of Central and Northern Australia (or rather the "Gulf of Carpentaria country") the descent of an individual is always traced through the *mother's* side, and wives are held to a great extent in common amongst brothers, and even near relatives. Now, let us glance at the Kopperamana tribes, mentioned before. Here we find two chief classes, or divisions (called Mordu Kapara in the Dieri language). The principal of these two divisions is called *kalaru*, the other being *Materi*. Each class is divided as follows:—

KALARU.	MATERI (MAN).
Kaualka (crow).	Wonku (a snake).
Wama (a snake).	Marikila (a snake).
Mindri (running, a kind of plant).	Kalku (rushes).
Wira (a bush).	Kapita (wallaby).
Kukunka (eel-hawk).	Wilapi (a plant).

Now, if a boy after being "made a man" wishes to take a wife, he cannot choose any girl, for, although there may be no blood relationship between him and the one whom he would choose if he had the deciding of his own affairs she may belong to his own, or mother's division, and so, according to the native law, be his sister. Say such a youth is a Kaualka (*vide* list) man. His mother was a Kaualka woman; and both are of the great division Kalaru. Our young friend must choose his spouse from the other division, Materi. He chooses a Wonku girl, say, and has a son. This son is a Wonku-Materi, and can marry back into any sub-class on his father's side; but not to any individual who has any blood relationship with him.

I hope in this brief sketch you will see the *modus operandi* of the class marriages. In Central Australia the tribes are divided into

four principal classes; Pultarra, Coomarra, Perula, and Aponoonga. The son of a Perula woman can marry into any division but that of his mother's. In one part of Central Australia, towards the Alice Springs, another curious alteration is made, the son of a "Perula" can only marry an "Apoonunga" woman; and the offspring of a "Coomarras" only become the husband of a "Pultarras." The family groups above referred to are perpetuated hereditarily—not in a direct line, but by intermissions. Thus the offspring of a "Pultarra" woman are not "Pultarra," nor "Coomarras," but Perula.

Returning to the Kopperamana tribes (*only* as regards names of classes), we find all male cousins are called brothers, equally with the children of one father (Ngatata, a Maori, or New Zealand, word by-the-bye); and all female cousins, or sisters, indiscriminately under one title—Ngatata. Father, or father's brother, uncle, are called by the same term: Aperi, mother or mother's sister, aunt, is called Andri. To particularise the real parent, the term "andri-waka," or "Aperi-waka, "little mother," or "little father," is sometimes employed.

A man dying and leaving a widow, the native law demands that his brother, however *much* married before, must take her to wife. She has during her real husband's life already called all his brothers and himself by one term, husband, so she easily falls into the new relationship. In fact, brothers seem to hold their wives in common. Men, however, call their individual wives *yungaras*, and those to whom they have a secondary claim by right of being brothers-in-law *kartetis*. No marriage ceremony is performed in South Australian tribes; but the wife is bought of the brothers, the payment often taking place over a course of years, time-payment in wives in fact.

Notes *on a recent* Discovery *in* Finistére.

By Admiral Tremlett.

Some masons who were employed in splitting erratic blocks of granite for building material, on a common near to the village of Saint Pabu in the Finistére, found near to them a Roman flanged tile. On lifting it they discovered it to be the covering to a cavity in which there had been a wooden box which had been entirely destroyed by decay; it contained from ten to eleven thousand small copper coins, the greater part of which were plated with silver, and which had been coined at Trèves.

Most of the coins were those of Valerius II, of Diocletian, Constantius Chlorus, Maximilian, Lucinus, Constantine the Great, and

Constantine II, dating from A.D. to the year 360; therefore it was during the fourth century that this treasure was concealed.

As soon as it became known that this treasure had been found all the inhabitants of the neighbourhood commenced to dig in every direction with pickaxe and shovel, but nothing whatever was found excepting, and at a short distance from the former, two silver cups and a patera, or perhaps a cover to the larger cups. No. 1 cup was intact and in a good state of preservation; it weighs 154 grammes. No. 2 has, on the contrary, lost its lower part by oxidisation, the patera has also suffered greatly from the same cause; it was of thinner silver than the cups. The ornamentation of the cups and also that of the patera was in *répoussé*. All three, together with all the coins, are now in the possession of M. Du Chatelier, at the Chateau de Kernuz, Pont l'Abbé Lambour, Finistére. A quantity of similar coins have been recently found on a hillock near to the station at Pont L'Abbé.

The supposition seems to be that the Romans were hard pressed, and compelled to quit the district, leaving their money-chest under the granite boulder where it was found; the place is still a common.

Dr. de Closmadeuc's late enumeration of the Megaliths in this neighbourhood is as follows:—

	Upright.	Fallen.	Built up in walls.	Broken.
Menec	1,035	24	84	26
Petit Menec	187	1	80	5
Kermario	773	39	17	153
Manio	16	81	60	3
Kerlescan	251	11	31	13
	2,262	156	272	200

Total menhirs in 1839—2,790.

NOTE.—The reason for there being so many broken menhirs now at Kermario is that the State declined to purchase those *beyond* the tower of the windmill, in consequence of which the proprietors broke them up for building material. They also declined to purchase those of the Manio, consequently they will also shortly disappear.

The Smithsonian Institution *and its* Anthropologic Work.

By T. Wilson, Esq.

James Smithson was an Englishman, the illegitimate son of one of the noble and powerful families of England. He never visited America. His father seems to have made for him a provision which enabled him, with his retired and simple habits, to accumulate the fortune which he bequeathed to the United States. He was educated at Oxford, taking an honorary degree in 1786, and using his mother's name until a few years after he had left the University, when he took the name by which he is now known, James Smithson, and which he bore until the day of his death, signing his will in that form. He travelled on the continent of Europe, staying for some time in the cities of Paris, Berlin, Florence, and finally Genoa, where he died. By his will he bequeathed his entire fortune, excepting certain annuities and gifts to his nephew, the son of his half-brother, and to any child or children which he might leave. Upon the death of his nephew without issue he bequeathed the whole of his property, subject to certain annuities, "to the United States of America, to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men."

The Hon. Richard Rush was sent by the United States to receive the legacy. There was the usual contest over a testament of this kind, but it was declared in the English courts to be a good and valid bequest, and the money was duly paid. The United States Congress incorporated the Institution, with the President of the United States, the Vice-President, the Cabinet Ministers and others as corporators; established a Board of Regents, and gave the management and direction of the Institution into their hands, with the Chief Secretary as its executive officer. The money was deposited in the Treasury of the United States, and the interest thereon at 6 per cent. per annum is paid to the officers for the support and maintenance of the Institution. The present building was erected and paid for out of the yearly income, and the principal has always remained intact. There has been some accretion, the total amount to its credit now being $703, 000.

The first Secretary of the Smithsonian Institution was Prof. Joseph Henry, whose name stands highest on the roll of fame in the United States, in connection with physical science. If Smithson is entitled to credit for the magnificent bequest which made the establishment of the Institution possible, to Prof. Henry must be given the even greater credit for the utilization of Smithson's bequest, and the organization and establishment of the Institution which bears his name. The affair, from its inception, was without precedent, and there were great legal and political discussions and even constitutional scruples in the American Congress over the organization of the Institution and the utilization of the bequest.

The establishment of the Institution, with its present power for good, is as much due to the wisdom and good sense of Prof. Henry as to the munificence of James Smithson.

By an unwritten law of the Institution a naturalist alternates with a physicist as its Secretary and Executive Officer; thus Prof. Spencer F. Baird, a naturalist, became its second Secretary. He died in August, 1887, and was succeeded by the present Secretary, Prof. S. P. Langley, who occupies the highest rank as an astronomer.

I do not attempt to describe the workings of the Smithsonian Institution, nor the scientific labours of its staff. One thing, which I may mention as being of interest to the scientists of foreign countries, is its establishment of a system of international exchange, by means of which scientific books and specimens, either for the libraries or the museums of foreign countries, may be exchanged. Its agencies have been established in the chief cities of every country in Europe, and in other parts of the world. By this means every public library (and many private ones) in these countries are brought into relation with the Smithsonian Institution; and scientific books and instruments, or specimens, may be sent from one country to the other without expense to either the sender or receiver. The importance of this Bureau of International Exchanges has not been properly understood nor sufficiently valued. The yearly cost of this bureau to the Smithsonian Institution is not less than $17,000 (£3,400).

Such is the parent scientific Institution of the United States Government. While it is dependent upon the interest of the Smithson Fund for its income, there has been added to it, or rather placed under its superintendence and direction, other scientific organizations which are supported by appropriations from the Government. The principal of these is the National Museum. If Prof. Henry receives the credit of the organization of the Smithsonian Institution, to Prof. Spencer F. Baird must be given the credit of the establishment of the National Museum.

The history of the National Museum may be divided into three periods. First, from the organization of the Smithsonian Institution in 1846 to 1857, during which time the specimens collected were used as material for research and study, and not for exhibition to the public; second, from 1857 to 1876, when it became the custodian of the "National Cabinet of Curiosities," and third, the period since 1876 when it entered upon a career of active work, and was organized for the public exhibition of its specimens. The *renaissance* of public interest in the National Museum was occasioned by the Centennial Exposition of 1876. Since then it has sought to be a museum for the education of the people, which Prof. Goode, the present Assistant-Director, has defined to be "a collection of instructive labels, each illustrated by a well selected specimen."

The prime requisite of success in the development of a great museum is a proper organization and a proper system of classification. The general idea of the classification of the National Museum is that it should be a museum of Anthropology, the word

being used in its comprehensive sense. It should exhibit the physical characteristics, the history, the manners, past and present, of all people, civilized and savage, and should illustrate human culture and industry in all their phases; the earth, its physical structure and products are exhibited with reference to their possible use by man and their resources for his needs. On these lines the National Museum has been organized.

The following is the outline of an ideal scheme of museum classification as prepared by Prof. Goode:—

Outline of a Scheme of Museum Classification.

Divisions.	Classes.
I. Mankind	1– 3
II. The Earth as Man's Abode	4–10
III. Natural Resources	11–15
IV. The Exploitative Industries	16–20
V. The Elaborative Industries	21–38
VI. Ultimate Products and their Utilization	39–47
VII. Social Relations of Mankind..	48–54
VIII. Intellectual Occupations of Mankind	55–64

Analysis.

I.—*Mankind.*—(*Anthropology.*)

1. Man as a zoological unit .. .. Somatology and psychology.
2. Man, grouped in peoples or races. (*a*) Races of men, physical characters; (*b*) linguistic characters; (*c*) art and industrial characters; (*d*) ethnogeny; (*e*) geographical distribution of races; (*f*) history, prehistoric and recent, &c.
3. Man, in individual manifestations .. Representative men: Biography.

II.—*The earth as man's abode.*—(*Hexiology.*)

4. The earth, in the solar system .. Cosmology.
5. The earth's structure.. .. .. Geology.
6. The features of the earth's surface .. Physiography.
7. The atmosphere and its phenomena.. Meteorology.
8. Effects of man upon the earth's surface, and of climate, physical features, &c., on man. Man and nature.
9. Apportionment and nomenclature of the earth's surface. Geography.
10. Exploration of the earth .. .. Voyages and travels.

III.—*Natural resources.*—(*Force and matter.*)

11. Force in its manifestations .. .. Physics, mechanics, and physiology.
12. The elements and their combinations. Chemical collections.

13. Inorganic matter .. .. .. Mineralogical collections.
14. The vegetable kingdom.. .. .. Botanical collections.
15. The animal kingdom .. .. .. Zoological collections.

IV.—*The exploitative industries.*—(*Exploitative technology.*)

Primary.

16. Exploitation of inorganic materials .. Mining and quarrying.
17. Exploitation of vegetable products of spontaneous growth. Lumbering and field-gleaning.
18. Capture of animals .. .. .. Hunting, fishing, &c.

Secondary.

19. Culture of plants .. .. .. Agriculture, horticulture, and forestry.
20. Culture of animals: domestic animals and their uses. Pecudiculture.

V.—*The elaborative industries.*—(*Elaborative technology.*)

21. Preparation of food-stuffs, narcotics, &c.
22. Distillation, manufacture of perfumeries, &c.
23. Oils, fats, soaps, and waxes; their preparation and use.
24. Gums, resins, glues, and cements.
25. Pigments and dyes; painting, staining, polishing, bleaching, &c.
26. The chemical manufactures and their products.
27. Feathers, hair, bristles, and their use.
28. Furs and leathers; tanning and currying.
29. Fibres, cordage, textile fabrics, needlework, basket-work.
30. Paper and its manufacture; book-making; stationery.
31. Hard and flexible organic tissues and their use.
32. Woods, and the wood-working industries.
33. Stones, and the stone-working industries; masonry.
34. Metals, metallurgy, and the metal industries.
35. Glass and enamel and their fabrication.
36. Pottery, and the ceramic industry.
37. Tools, machinery, and motors, their manufacture and use.
38. Construction, architecture, and civil engineering.

VI.—*Ultimate products and their utilization.*

39. Foods and drinks: preparation, cookery, &c.
40. Narcotics and masticatories; pipes, &c.
41. Dress, and personal adornment.
42. Buildings, villages, and cities.
43. Furniture, house interiors, domestic economy, &c.
44. Heating and illumination
45. Medicine, surgery, pharmacology, hygiene, &c.
46. Public comfort, recreation, protection, and rescue.
47. Transportation by land and water: appliances and accessories.

VII.—*Social relations of mankind.*—(*Sociology and its accessories.*)

48. The vocations of men.
49. Communication of ideas and their record: writing and printing, telegraphy, signals, &c.
50. Trade and commerce.
51. Societies and federations, social, beneficial, religious, and political.
52. Government and law.
53. War (including armour and weapons).
54. Festivals, ceremonies, usages, memorials, &c.

VIII.—*Intellectual occupations of mankind.*—(*Art, science, and philosophy.*)

55. Games and amusements.
56. Music and musical instruments.
57. The drama and the stage.
58. The pictoral, plastic, and decorative arts.
59. Literature (from the intellectual standpoint only).
60. Folk-lore, traditions, and superstitions.
61. Science: (Research and record). Scientific instruments.
62. Philosophy, religious, metaphysical, and cosmical.
63. Education and reform; schools, museums, libraries, &c.
64. Climaxes of human achievement.

All these divisions, except Nos. II and III, belong essentially to Anthropology. There are in the National Museum, as at present organised, twenty-two departments, each with a Curator at the head. The two departments nearest allied to Anthropology in its restricted sense are that of Ethnology, presided over by Prof. Otis T. Mason, and that of Prehistoric Anthropology, presided over by myself. I can only give on this occasion a glance at my department. It is located in the great hall in the second story of the Smithsonian Institution building. This hall is 200 feet long, 50 feet wide, and is well lighted with the tall, pointed, arched windows of the Early English style of architecture. It contains 257 cases, some of which are upright, some wall, some flat, and others hip-roofed. The number of objects displayed is about 150,000. The rule by which objects are admitted to my department is that they shall be prehistoric. By an arrangement of cases, objects belonging to prehistoric times of other continents than North America are displayed together. The divisions are by countries, and so far as possible by epochs. The greatest number of objects in my department, as one might suppose, belong to my own country. They are now being arranged geographically, the prime divisions being according to states and afterwards subdivided, wherever possible among the various prehistoric tribes within the state. Some criticism has been passed upon this method, and there has been a contention in favour of grouping each class of objects together and separate from other objects or classes. I defend my classification by saying, that if the desire of the student be to study the *object*,

to write *its* history, to discover its evolution, then the method of classification by objects may be best. But the student of prehistoric anthropology does not study independently the object or implement. His study is of the man who made and used them, and the state of culture of that man, whether industrial, social, or political. This being my desire, I prefer to group all the objects and implements made or used by the prehistoric man in a given locality, so that we may see at one glance everything bearing upon his capacity, condition, industry, his art, and his social and political life.

I am also making an assortment and segregration of the objects in the museum so as to form a synoptical display which will show a comprehensive series of the implements belonging to prehistoric man, and convey to the average and non-scientific visitor who has but thirty minutes to devote to the museum, a slight understanding of the science of prehistoric man, rather than that his time be wasted in the attempt to go over the entire museum, which will be to him but little more than a dreary waste and an endless repetition.

The Department of Ethnology is devoted in like manner to the implements and objects belonging to the different races of men in use in modern times. While it may include other countries, its principal display belongs, naturally, to the savage or barbarous races of the North American continent.

All officers of the Army and Navy of the United States, making expeditions or voyages of discovery, who may obtain ethnologic material in either our own or foreign countries, are required to deposit it in the National Museum. Specimens of human anatomy, however, are deposited in the Army Medical Museum, which adjoins the National Museum. In this way the various exploring expeditions, beginning with that of Commodore Wilkes in the South Pacific Ocean, and continuing through all those sent to the northern latitudes among the Eskimos, have been deposited, and are now being displayed in this department of the National Museum.

The Bureau of Ethnology, of which Major J. W. Powell is Director, is another organization placed by the Congress of the United States under the direction of the Smithsonian Institution. It has a staff of workers who are engaged in systematic and scientific research into the ethnology of North America. It is now studying the Indian languages, traditions and folk-lore, investigating Indian mounds, earthworks, and prehistoric monuments, and making topographic models of maps illustrative of these subjects. All archæological specimens are deposited in the National Museum, the anatomical specimens in the Army Medical Museum.

The Smithsonian Institution has during its existence published many hundred volumes relating to almost every branch of science. A list of those relating to Anthropology up to 1879 is given in the Smithsonian Report for that year.

My space does not admit of any description of the work of these organizations. The field of prehistoric anthropology and of

ethnology presented in the United States is immense. Its very vastness overcomes the student who carefully contemplates it. Yet with all the activity, energy, and wealth of the American people I can scarcely compliment them upon their success in a thorough cultivation of this field, and there are undoubtedly many things which we might well learn from England and from English scientists.

The late Dr. Asher, M.D.

We have to mourn, amongst other losses of the year 1889, that of Dr. Asher, who died on the 7th January, of malignant disease of the pleura. He had been failing in vigour for some two years, but the terminal stage of his malady ran a rapid course of about two months. Dr. Asher was born in Glasgow on February 16th, 1837, and graduated M.D. of that University at the age of 21. He exchanged in the year 1862 the profession of medicine for that of literature, having been elected secretary of the present "United Synagogue," for which his acquaintance with oriental learning and the Talmud especially qualified him. He never, however, deserted medicine as a study, nor indeed as a practice when his services were required in the cause of charity.

Dr. Asher was much interested in Anthropology, but in consequence of his multifarious occupations he never took any active part in the work of the Institute.[1] His knowledge of Eastern languages was chiefly conspicuous in his intimate familiarity with Hebrew, in which he could converse and write with elegance and fluency, and his deep study of the origin of customs and comparative theology enabled him to view the Scriptures in a wide field with the light of his wise and philosophic mind, so that his explanations occasionally startled those who were in the habit of reading only the letters upon the surface. He was a frequent contributor of thoughtful articles to the "Jewish Chronicle," but his writings on ethnological and other subjects, with the exception of a quasi-medical work, were anonymous, and, although he possessed a forcible style and a rich command of words, he rarely spoke in public.

Dr. Asher visited Jerusalem and Egypt in 1875, in company with Mr. Samuel Montagu, M.P., when his oriental lore was of great value. Finding the tomb of Rachel insufficiently marked, he raised a monument, with an inscription in testimony of the duty of "one of her sons."

At the time of the persecution of the Jews by Russia he was indefatigable in his place at the Mansion House Committee, and at the request of that Committee he started in 1882 with Mr. Montagu and the late Mr. Lawrence Oliphant for Lemberg and Brody to

[1] Dr. Asher was not a member of the Anthropological Institute at the time of his death.

examine, classify, and select for colonization, suitable cases from amongst the victims who had crowded over the frontier to take refuge in Austria.

In the year 1884 he accompanied Mr. Montagu and Mr. B. L. Cohen to America in order to inspect the prosperous colony formed by these outcasts. He then took the opportunity to attend the meeting of the British Association, which was held that year in Montreal.

He visited Utah, had frequent interviews with the President, Joseph Taylor, and returned laden with religious books of the Mormon community.

His last pilgrimage was made to Russia, where he went with his old colleague, Mr. Montagu, in 1886. It was at this time that his health seriously gave way; but he continued to work bravely in defiance of much suffering.

Although ever at work his labours were felt, not seen, and generally dissociated from their author; yet for so retiring a man few persons were better known, and certainly none better loved.

MAURICE DAVIS.

INDEX.

HARRISON AND SONS,
PRINTERS IN ORDINARY TO HER MAJESTY,
ST. MARTIN'S LANE, LONDON.

VOL. XIX. No. 4.] Price 5s.

THE

JOURNAL

OF THE

ANTHROPOLOGICAL INSTITUTE

OF

GREAT BRITAIN AND IRELAND.

MAY, 1890.

All Letters and Communications for the Institute to be addressed to the Secretary, at the Institute, No. 3, Hanover Square, W.

LONDON:
PUBLISHED FOR
The Anthropological Institute of Great Britain and Ireland,
BY
TRÜBNER & CO., 57 & 59, LUDGATE HILL.

All Rights Reserved.

HARRISON AND SONS, PRINTERS IN ORDINARY TO HER MAJESTY, ST. MARTIN'S LANE.

OFFICERS AND COUNCIL
OF THE
ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND
For 1890.
(Elected January 28th, 1890.)

PRESIDENT.
JOHN BEDDOE, Esq., M.D., F.R.S.

VICE-PRESIDENTS.
Ex-officio.

CAPTAIN SIR R. F. BURTON, K.C.M.G.
JOHN EVANS, Esq., D.C.L., F.R.S.
PROF. FLOWER, C.B., LL.D., F.R.S.
F. GALTON, Esq., M.A., F.R.S.
PROF. HUXLEY, LL.D., F.R.S.
RIGHT HON. SIR JOHN LUBBOCK, BART., M.P., F.R.S.
LIEUT.-GEN. PITT RIVERS, D.C.L., F.R.S.
EDWARD B. TYLOR, Esq., D.C.L., F.R.S.

Elected.

E. W. BRABROOK, Esq., F.S.A.
HYDE CLARKE, Esq.
J. G. GARSON, Esq., M.D.

SECRETARY.
F. W. RUDLER, Esq., F.G.S.

TREASURER.
A. L. LEWIS, Esq., F.C.A.

COUNCIL.
G. M. ATKINSON, Esq.
C. H. E. CARMICHAEL, Esq., M.A.
REV. R. H. CODRINGTON, D.D.
J. F. COLLINGWOOD, Esq., F.G.S.
SIR LEPEL GRIFFIN, K.C.S.I.
T. V. HOLMES, Esq., F.G.S.
H. H. HOWORTH, Esq., M.P., F.S.A.
PROF. A. H. KEANE, B.A.
PROF. A. MACALISTER, F.R.S.
R. BIDDULPH MARTIN, Esq., M.A.
PROF. MELDOLA, F.R.S.
RIGHT HON. THE EARL OF NORTHESK, F.S.A.
C. PEEK, Esq., M.A.
F. G. H. PEICE, Esq., F.S.A.
CHARLES H. READ, Esq., F.S.A.
I. SPIELMAN, Esq.
OLDFIELD THOMAS, Esq., F.Z.S.
COUTTS TROTTER, Esq., F.G.S.
M. J. WALHOUSE, Esq., F.R.A.S.
GEN. SIR C. P. BEAUCHAMP WALKER, K.C.B.

ASSISTANT SECRETARY.
GEORGE W. BLOXAM, Esq., M.A., F.L.S.

Collector.
MR. STRETTON.

CONTENTS.—*continued.*

ANTHROPOLOGICAL MISCELLANEA—

The Council desire it to be understood that in giving publicity to the Papers read before the Institute, and the discussions thereon, they accept no responsibility for the opinions or statements of individual members.

CONTENTS.—No. 71, MAY, 1890.

[OVER.

4345
4